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The Hot Springs of Bath.



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. THE .
HOT SPRINGS
OF
BATH:

MEDICAL HANDBOOK *published by the Hot Mineral Baths Committee of the Bath Corporation with the approval of the Bath Medical Committee of the British Medical Association.*

Compiled by JOHN HATTON,
Director of the Baths.

BATH:

PRINTED BY FYSON & COMPANY, UPPER BOROUGH WALLS.



BATH.

THE PREMIER HEALTH RESORT.



THOUGH BATH has been a Health Resort for more than eighteen centuries, its pre-eminence among our home Spas is not due alone to its antiquity. The source of all its historic reputation, the origin of its name and very existence may be traced to its Healing Springs. No other watering-place in Britain has been similarly endowed by nature, for it is at Bath alone in these Isles that natural hot medicinal springs are to be found. Unlike some resorts created and fostered merely by the fancy of a generation, Bath has at no time in its history been wholly subservient to the inconstant mandates of fashion. Its springs were always too health-giving to be forsaken, and to this precious gift of nature for the alleviation of human suffering, Bath may attribute the making of a history more remarkable, and a position all through the ages more assured, than that of any other British Spa.

The Romans were well versed in the science of Balneology, and that they seized upon the site of Bath for the raising of temples and Baths, lofty and magnificent, was doubtless due to the fact that at no other spot in Britain did nature so provide for their needs. The waters rising hot from the earth, their baths could be filled direct from the springs in like manner to the baths in the modern bathing establishments at the present day. The springs having a temperature of 117° to 120° Fahr. no artificial heating had to be employed at the risk of impairing their healing virtues. That Bath remains to this day the only resort in Britain where natural hot curative baths can be obtained is a phenomenon that is influencing the medical profession more and more as its therapeutic importance becomes appreciated.

That these unique natural advantages of Bath are receiving increasing recognition is evidenced by the fact that its Baths to-day enjoy a prosperity with which no former period in the City's history can compare, although all Europe is open now to the invalid and the valetudinarian. On a mural tablet conspicuous on the frontage of the King's and Queen's Baths, which are built over a portion of the site of the Roman *Thermæ*, there is inscribed in letters of gold :—"These Healing Springs have flowed on from time undated to this day. They explain the Origin, account for the Progress and demand the Gratitude of the City of Bath."

THE LEGEND OF BLADUD.

Although history is an entire blank concerning the use of the Hot Springs of Bath prior to the Roman occupation, the legend of their discovery by Bladud takes us far back over the trackless waste of the past.

The story, recorded as actual history by some old writers, tells how Bladud, heir-apparent to the British King, Lud Hudibras, in 863 B.C., being afflicted with leprosy was driven from the court. Wandering into Somerset, in great distress, he obtained charge of a herd of swine. The swine contracted the disease, but being driven across the Avon were attracted by hot springs boiling up from the earth, turning the immediate surroundings into a steaming morass.

Day after day the pigs wallowed in the mud, with the result that the leprosy left them ; and Bladud, following their example, was also cured of his disease. He returned to the court and eventually succeeded to the throne. Returning to the scene of his wonderful cure he enclosed the springs, built palaces and temples, and founded his capital—the first "city of the hot springs."

Geoffrey of Monmouth records that King Bladud was a master of the black art and continually devising some new wonder. Finally, attempting to fly by means of wings, he fell on to the roof of the temple and was dashed to pieces. Bladud was the father of Shakespeare's King Lear, who succeeded him on the throne.



KING BLADUD

*The discoverer of the Hot Springs of Bath.
Statue over the King's Bath.*



CENTREPIECE OF PEDIMENT OF THE
TEMPLE OF MINERVA.
*(The original is in the Museum adjoining the
Roman Baths).*

THE ROMAN BATHS AND ANTIQUITIES.

Bath's origin and celebrity having been traced to its Springs and Baths, it is important to review in some measure the great work which the Romans did in enclosing the area of the springs and in the erection of those stately baths and temples, the remains of which are to-day of absorbing interest. From calculations, which the discoveries of recent years have alone rendered possible, there is reason to believe that the Roman Thermæ covered an area of some six to seven acres, with accommodation embracing all the requirements to be found in the baths of Ancient Rome.

Many of the most important discoveries were made as late as 1882, when the great rectangular bath was uncovered, the site of which was previously occupied by dwelling houses and shops. This bath, now open to the sky, originally occupied a hall 110ft. by 68ft., its water surface measuring 82ft. by 40ft. The original pavements surrounding it remain in a remarkable state of preservation as well as the recesses or *exedrae*, in which bathers hung their clothes or used for rest or retirement. The large bath was also apparently supplied with a cold spray, to serve the purpose either of a *douche* or to quench the thirst of the bathers, a long section of Roman lead pipe remaining *in situ* which appears to have been used for the conveyance of cold spring water to the bath. This assumption is based on the absence of the orange-coloured deposit which is to be found in all the pipes employed to convey the natural hot water. Upon the excavation of the baths this mineral deposit covered the floors to a considerable depth, and it is probably to this deposit that the preservation of the ancient structures is mainly due. Even to-day, with five baths disclosed, the excavations have been conducted over merely a tithe of the site of the Roman establishments. The floor of the large bath is entirely coated with lead weighing 40lbs. to the foot, more than 40 tons being used in covering it. This lead was probably obtained from the Roman mines in the Mendip Hills, pigs of lead having been found there bearing the stamps of Claudius and Vespasian, while the baths were constructed of the stone obtained from the hills around Bath, where now exist the famous quarries of Bath stone. There has also been excavated the huge octagonal Roman well built to enclose the area of the principal spring. It encloses a surface 50ft. by 40ft., and is situated beneath the floor of the historic King's Bath, the latter receiving the overflow from the spring. Connected with the ancient baths were heating chambers or hypocausts, extensive remains of which have also been uncovered.

The architectural relics stored in the museum adjoining the Roman baths are of profound interest to all antiquarians. That there were sculptors in those days, masters of their art, none can doubt when they observe the noble friezes, the exquisite cornices and sculptured symbolism unearthed from among the ruins. Some of these embellished the Roman Temple of Minerva which existed on or near the site where the Grand Pump Room now stands. Numerous personal ornaments and gems, too, have been found, as well as inscribed monuments and tablets, all of which seem to bring us closer still to the life and the manners and customs of our predecessors in the management and use of the thermal waters. Drinking vessels found in a dipping well forming part of the ancient bathing establishment afford positive proof that the Romans recognised the value of the mineral water for drinking. The Roman occupation of Bath lasted close upon 400 years. Then followed a period of desolation when the architectural glories of the Roman epoch were suffered to lapse into ruin; the conduits which carried off the water from the hot springs were choked up; the baths themselves were filled with debris and mineral deposit; the springs, still welling forth, formed streams at higher levels; silt and marsh covered the site, and wild-fowl nested in the wilderness. In the Grand Pump Room to-day the visitor will observe a teal's egg, found upon the ambulatory of the great Roman Bath during the excavations in 1882, preserved by a strange chance to illustrate how complete was the scene of desolation which followed for a time that spirit of luxury which was fast draining the blood of a dying empire.

An early Anglo-Saxon poem records in graphic language the vastness and completeness of the ruin after the sack of the city by the victorious Saxons :—

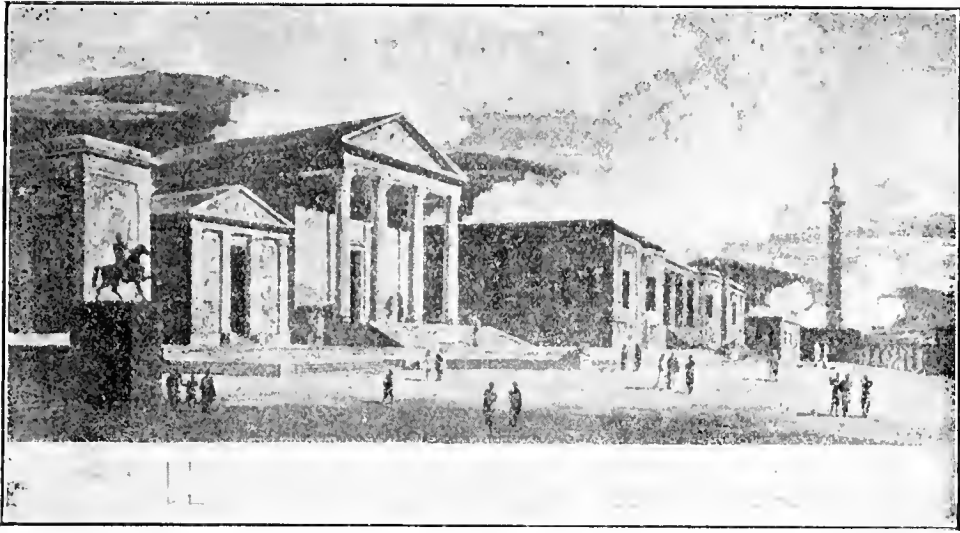
“Wondrous is its wall of stone, strange the ruin!
Broken are the burg-steads! Crumbled is the giants’ work.
Fallen are the roof beams; tottering are the towers;

* * * * *

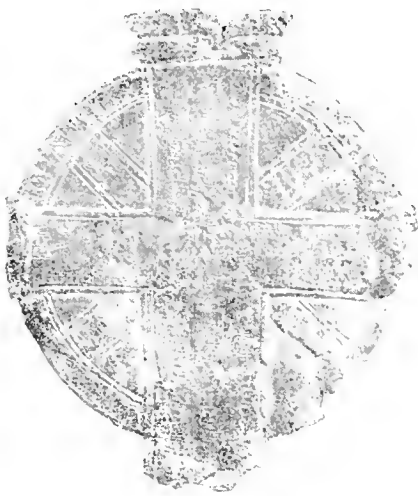
Bright were the burg-steads, the bath-houses many;
High towered the pinnacles, of the host a mickle sound,
Many were the mead-halls, full of mirth of men,
Till all was overturned by Fate the violent!

* * * * *

There stood courts of stone; hotly surged the stream,
With a widening whirling (a wall enclosing all),
With its bosom bright. There the baths were set,
Hot within their heart; fit (for health) it was!”



RESTORATION OF THE ROMAN TEMPLES AND BATHS
(from Lyson's "Roman Remains at Bath,"
published 1802).

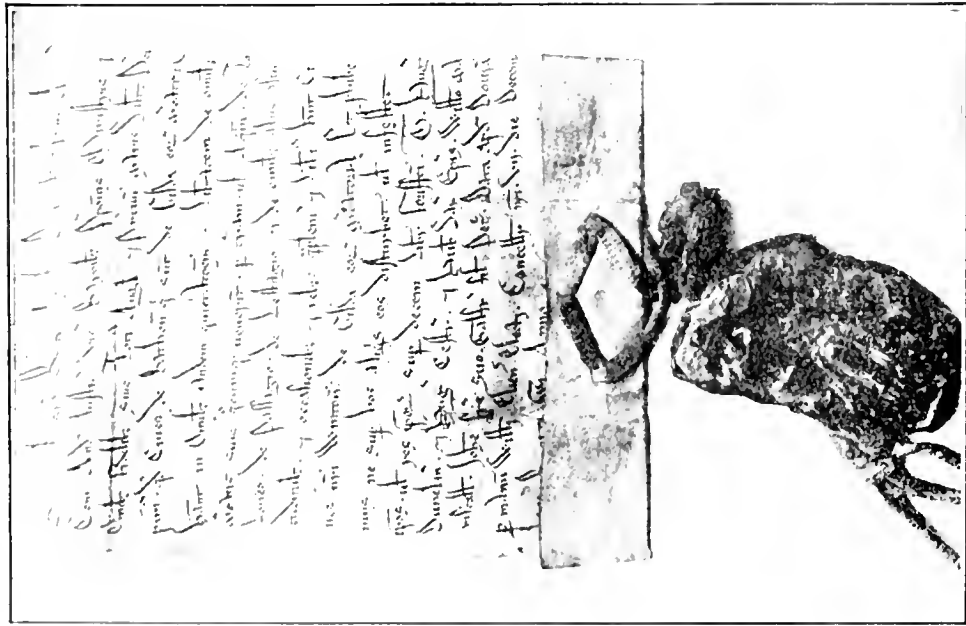


THE SAXON CROSS.

(front.)

(back.)

A leaden Cross commemorating the death and burial of Eadgyfu, Queen of Edward the Elder, found in 1898 by the late City Architect, Major Charles E. Davis, F.S.A., during excavations at the Baths.



THE CHARTER OF RICHARD I.
(7 Dec., 1 Rich. I., A.D. 1189)
TO THE CITY OF BATH.

THE BATHES OF
Bathes Ayde
Wonderfull and most excellent,
agaynst very many Sickneses approved
by authority, confirmed by reason, and
daily tryed by experience: with the
antiquarie, commoditie, proprietie,
knowledge, vse, aphorismes, diet,
medicine, and other things
that to be considered and
observed.
Compendiously compiled by
John Lucas Phisician.
LONDON S.A.L.V.T.I.S. 1572.
At Asple Hall besides
Nottingham.
W 1573
Printed at London for William
Jones: and are to be sold at his
new long Shop at the West
dore of Pauls Church.
g. May.

Title page of the first Medical Treatise
on the Bath Waters,
written by Dr. John Jones, 1572.

In the eighth century a new city was raised under its Saxon name Bathanceaster, and the ruins of the ancient baths evidently became the quarry out of which the builders, Saxon and Norman, procured material for the monastery, the city walls and the Bishop's palace, which covered a portion of the site ; indeed stones can be traced in the Abbey Church rebuilt 1500 and subsequently that owed their first shapeliness to Roman hands. A priceless memento of the Saxon period, to be seen in one of the cases in the Pump Room, was unearthed during excavations on the site of the ancient Baths. It is a leaden cross, $4\frac{1}{2}$ in. by $3\frac{1}{2}$ in., believed to have been executed in commemoration of the death and burial of Eadgyfu, Queen of Edward the Elder. The importance of the city in those early days is evidenced by the fact that in 973 King Edgar was crowned with great pomp in the Saxon Abbey.

The continuance of the Baths on one site for so long a period is appropriately recorded on the south wall of the mediæval King's Bath. Here an inscription informs the reader that there was laid on Roman masonry in July, 1886, "the corner stone of new baths, thus connecting in work and object the modern with the ancient world."

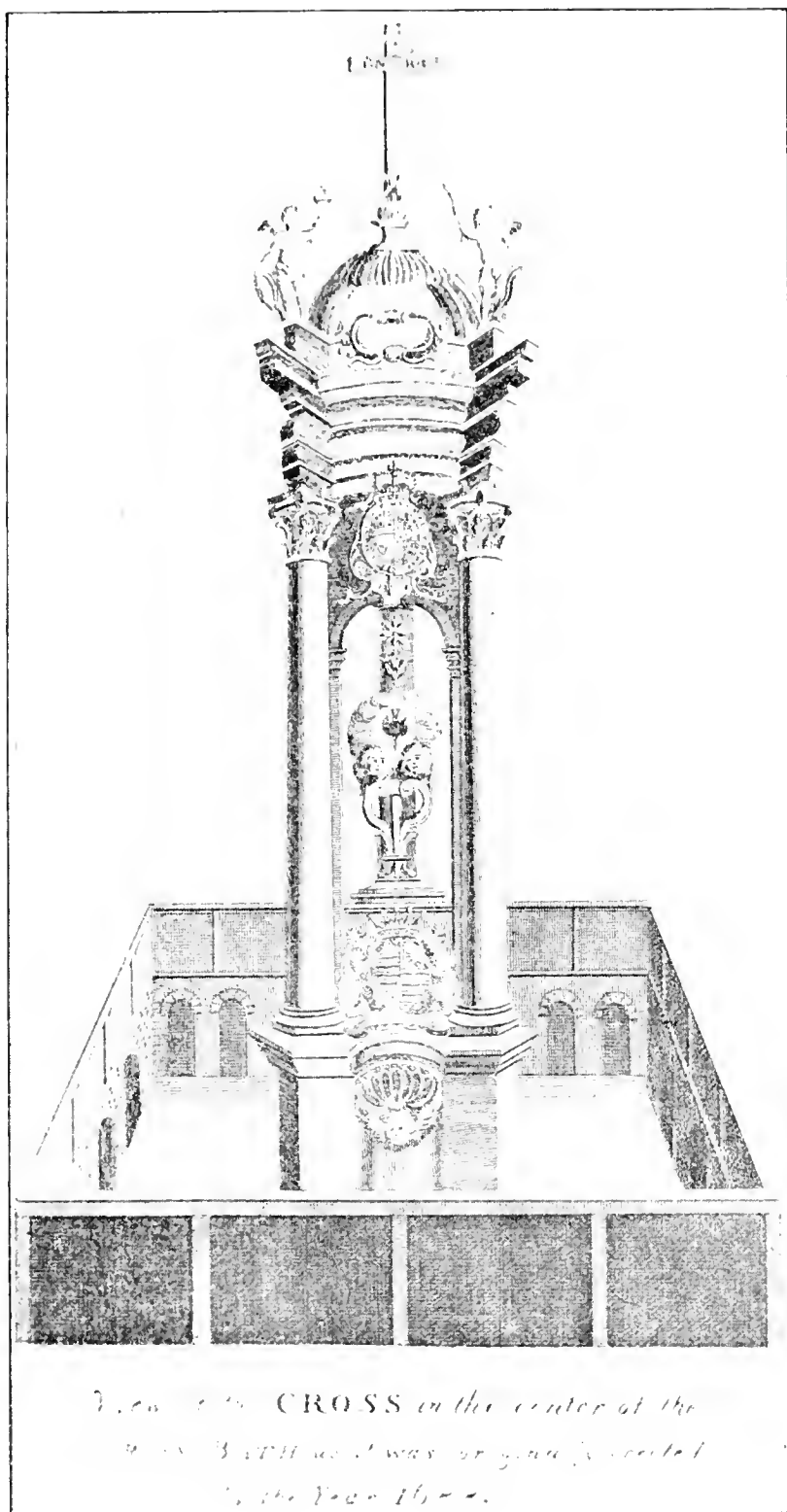
THE BATHS OF THE SEVENTEENTH CENTURY.

From the Saxon period, however, till the commencement of the 18th century, comparatively little is recorded of the actual state of the baths. In 1881 the British Museum was fortunate in purchasing an old pen and pencil drawing of the King's and Queen's Baths made in 1675, the work of J. Johnson, and the picture well illustrates the description given by various early writers of the houses surrounding the baths, mostly occupied by medical men, with lodging accommodation sufficient for all their patients. Bathers not residing here were after their bath usually packed in a sheet and blankets and sent home in a Sedan chair, there being no proper accommodation at the bath for dressing. The immortal gossip Pepys, who visited the city in 1668, alludes to this custom in the following entry in his diary : " To the Cross Bath where we were carried . . . Away wrapped in a sheet and in a chair home (I stayed about two hours in the water) to bed sweating for an hour." The Cross Bath alluded to was at this time the most

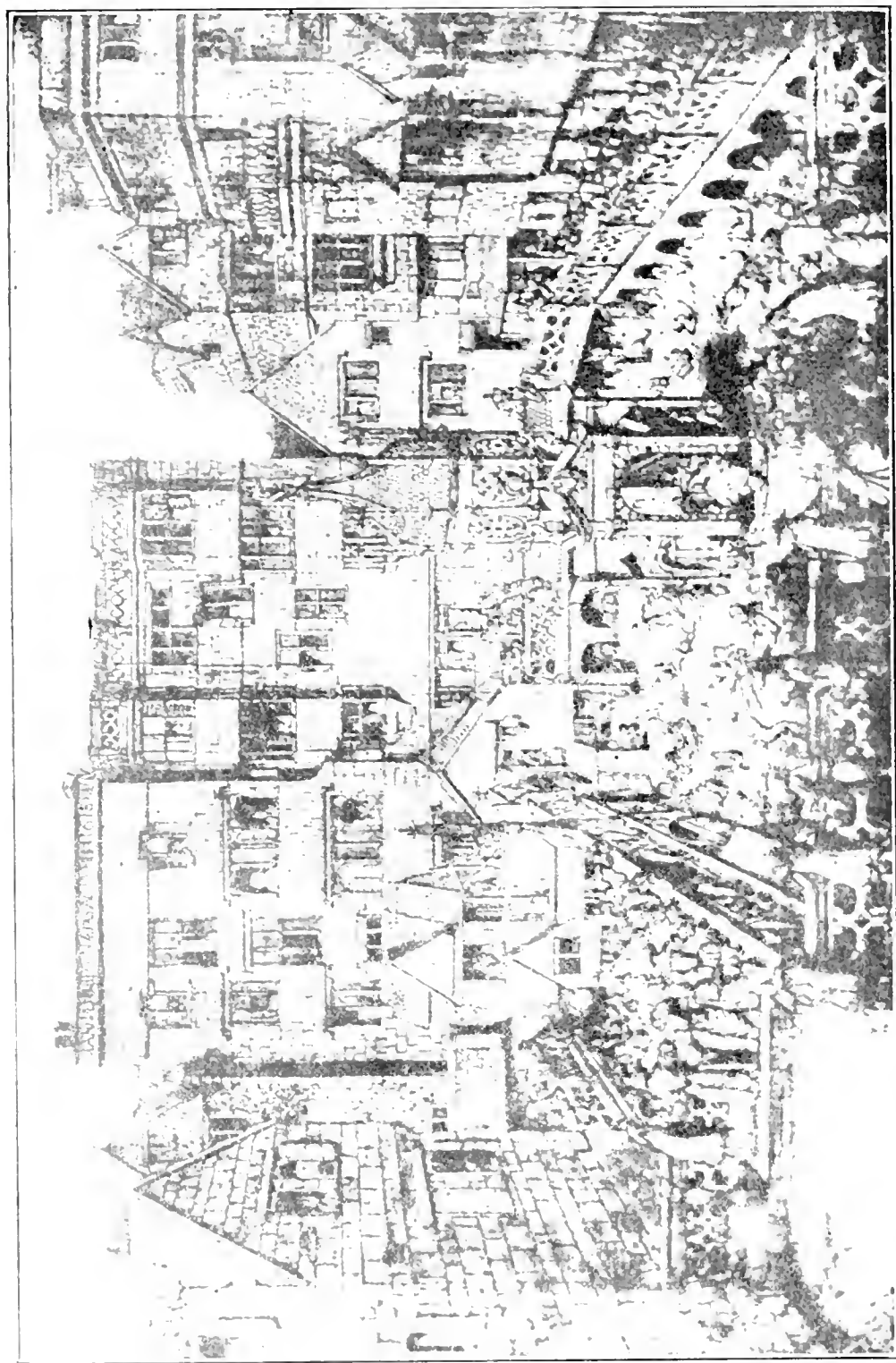
fashionable bath ; and Defoe in his "Tour through the Island of Great Britain," published in 1725, also gives an interesting description of the bathing customs of the period. "In the morning," he writes, "the young lady is brought in a close chair, dressed in her bathing clothes to the Cross Bath. There the music plays her into the bath, and the women who tend her present her with a little floating wooden dish, like a basin, into which the lady puts a handkerchief and a nosegay, and of late years the snuff box and smelling bottle are added. She then traverses the bath, if a novice, with a guide, if otherwise by herself, and having amused herself near an hour calls for the chair and returns to her lodgings." In the centre of the Cross Bath there formerly stood an elaborate structure surmounted by a cross, which was erected by the Earl of Melfort, Secretary of State to James II., in commemoration of the Queen Mary of Modena having used this bath with happy results in 1688. The bath is now a cheap public one.

The drawing already referred to represents a crowd of figures in every imaginable position disporting themselves in the King's Bath, wholly or partially clothed, or when juvenile devoid altogether of apparel. There is no doubt that about this time the baths were allowed to fall into a shocking state of disrepair, and in all the writings dealing with the period a pitiful vista is presented of neglect, alike of comfort and of decency. Not only were the baths open to the weather, but the bathers to the jibes and sometimes the pelting of idlers, who loitered in a public passage overlooking the bath, while youngsters wandered naked about the precincts of the bath and dived in for pence thrown in by the onlookers. There was no provision whatever for the separation of the sexes until 1753, when the Corporation decided that the bath should be given three days to the ladies and three to the gentlemen. At the time of Johnson's drawing the King's Bath appears to have been devoted largely to swimming and diving. The figures represented in the Queen's Bath, adjoining, are, with one or two exceptions, ladies, according to Pepys "very fine ladies, and the manner pretty enough, only methinks it cannot be clean to go so many bodies together in the same water. Strange to see how hot the water is, and in some places the springs so hot as the feet are able to endure. Women and men live all the season in the waters, parboiled, and look like creatures of the bath."

Additions to the establishment in later days necessitated the Queen's Bath being built over, but the King's Bath still remains, the principal spring rising in its centre.



*Cross erected in commemoration of the visit of the Queen,
 Mary of Modena, in 1688.*



KING'S AND QUEEN'S BATHS, 17TH CENTURY
(from a drawing in the British Museum).

This may be viewed from a window in the Grand Pump Room. Inserted in the walls surrounding it are a number of brass rings, placed there for the use of bathers by persons who had derived benefits from the waters. Many of the rings have, from time to time, been removed, but a number of those remaining are handsome and massive, notably one bearing the name of the Duchess of Cleveland, while upon another is inscribed: "Thanks to God, I, John Revet, his Majesty's brazier, at 50 years of age in ye present month of July, 1674, received cure of a true palsie from head to foot on one side."

The inscription upon this ring is of additional interest from the fact that this was the John Revet who purchased of Parliament the noble equestrian statue of Charles I. by La Sœur, and who, in spite of strict injunctions to break it up, concealed it by burying it in the earth until the restoration of King Charles II. when it was erected at Charing Cross. Another conspicuous feature in the King's Bath is an effigy of Bladud, with an inscription beneath recalling the legend that he was "the founder of these baths 863 years before Christ."

There also remain portions of a handsome stone balustrade which formerly surrounded the King's bath. This was the gift of Sir Francis Stonor, Kt., in 1624, in return for relief given by the bath from "gout and aches in the limbs," the donor, as recorded in an inscription on the south wall of the Kings' Bath, "living many years after well in health to the age of near ninety."

Such are a few of the remarkable testimonials to the efficacy of the Bath waters engraved in brass and stone centuries ago, and the continuity of this testimony is illustrated by the innumerable entries in the visitors' books at the Baths in recent years and continued by patients from all parts of the world to this day.

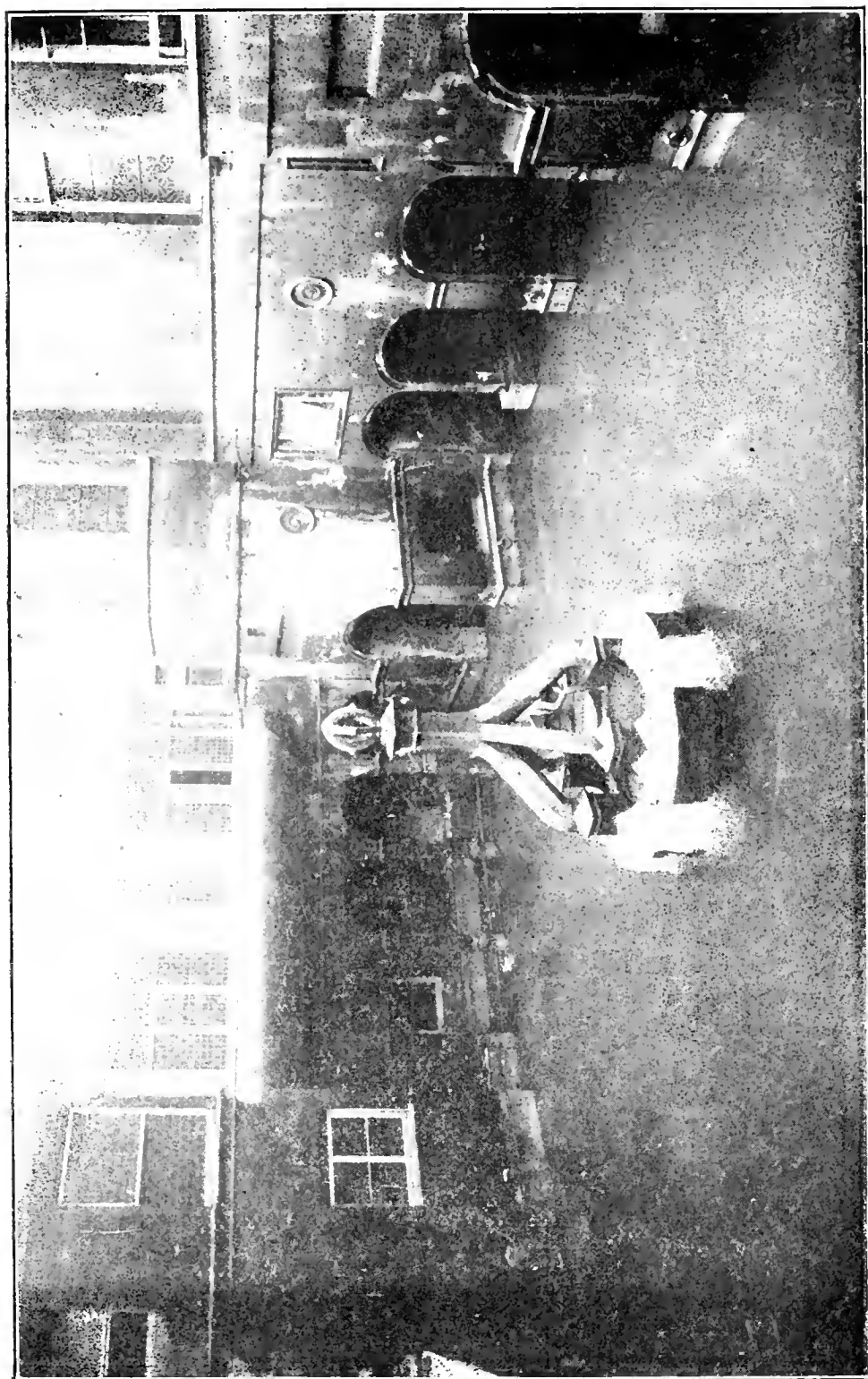
PRIMITIVE BATHING CUSTOMS.

The primitive methods of administering the waters which existed till nearly the close of the following century, afford a striking contrast to the luxurious and comfortable provisions of the present day. To serve the purpose of what is now known as the *douche*, water was pumped or poured in buckets on to the affected limb by officials known as pumpers, during which process the patient stood in the hottest part of the bath. A table of fees charged in 1778 shows that 100 strokes of the pump were given for 3d., and Dr. Peirce relates that as many as 700 or 800 pumps were now and then directed on the bare head, then 1,500 and 2,000 and so on for five or six weeks every

year. For lumbago 2,000 strokes were ordered to be pumped on the back, and the cure was completed by ten more pumpings of a thousand strokes each. As a result of the entire absence of toilet accommodation at the bathing establishments, patients who resided beyond the immediate precincts of the baths were entirely at the mercy of the Sedan chairmen. Visitors were carried in Sedan chairs to bathe, and back again without change of clothes, to bed. As one writer remarks, "nothing could exceed the helplessness of an invalid, swaddled in a wringing wet bathing dress which he was anxious to change. On this helplessness the chairmen traded. If a 'fare' was obstinate, the door of the chair was fastened on the outside and the inmate became a prisoner. In cases of unusual determination to resist extortion, the top of the chair was removed, and if it happened to be raining smartly, an hour of this treatment was found effectual even in confirmed cases. One gallant general was left in this predicament the whole of a winter's night, and was half killed by his supplementary bath."

The quaint manners and customs of the period are amusingly dealt with by the inimitable pen of Rowlandson, and the witty verse of Anstey, the satirical poet of the period. Anstey's famous satire, "The New Bath Guide," won such instantaneous success that the booksellers could not supply it fast enough, and nothing can be said to so clearly illustrate the realism of the Eighteenth Century with all that characteristic humbug, hypocrisy, charlatancy and folly peculiar to a certain type of Bath "Society" of the period. But Anstey was not always satirical, and the following lines in gilt letters in the Pump Room which he wrote in aid of the Bath Mineral Water Hospital, afford an instance of the nobler side of his character and still serve to keep his memory green :—

Oh pause awhile, who'er thou art
 That drinks this healing stream,
 If e'er compassion o'er thy heart
 Diffused it's heavenly beam,
 Think on the wretch whose distant lot
 This friendly aid denies;
 Think how in some poor lonely cot
 He unregarded lies.
 Hither the helpless stranger bring,
 Relieve his heartfelt woe,
 And let thy bounty like this spring
 In genial currents flow.
 So may thy years from grief and pain,
 And pining want be free,
 And thou from heaven that mercy gain,
 The poor receive from thee.



THE KING'S BATH (*Present Day*).



SIR FRANCIS STONOR, KT.

Donor of the stone balustrade surrounding the King's Bath,

1624.

The Royal Mineral Water Hospital was founded in 1737 for the free treatment of poor patients suffering from complaints for which the Thermal Waters of Bath are a remedy. There are 150 beds, and about 1,200 patients are admitted every year : since 1742, 86,493 patients have been treated, of whom 74,220 (83 per cent.) were cured or relieved. Persons desiring to obtain the admission of a patient should apply to the Registrar of the Hospital, who will forward full information and the necessary forms of certificate. No out-patients are treated.

THE BRILLIANT BATH OF THE EIGHTEENTH CENTURY.

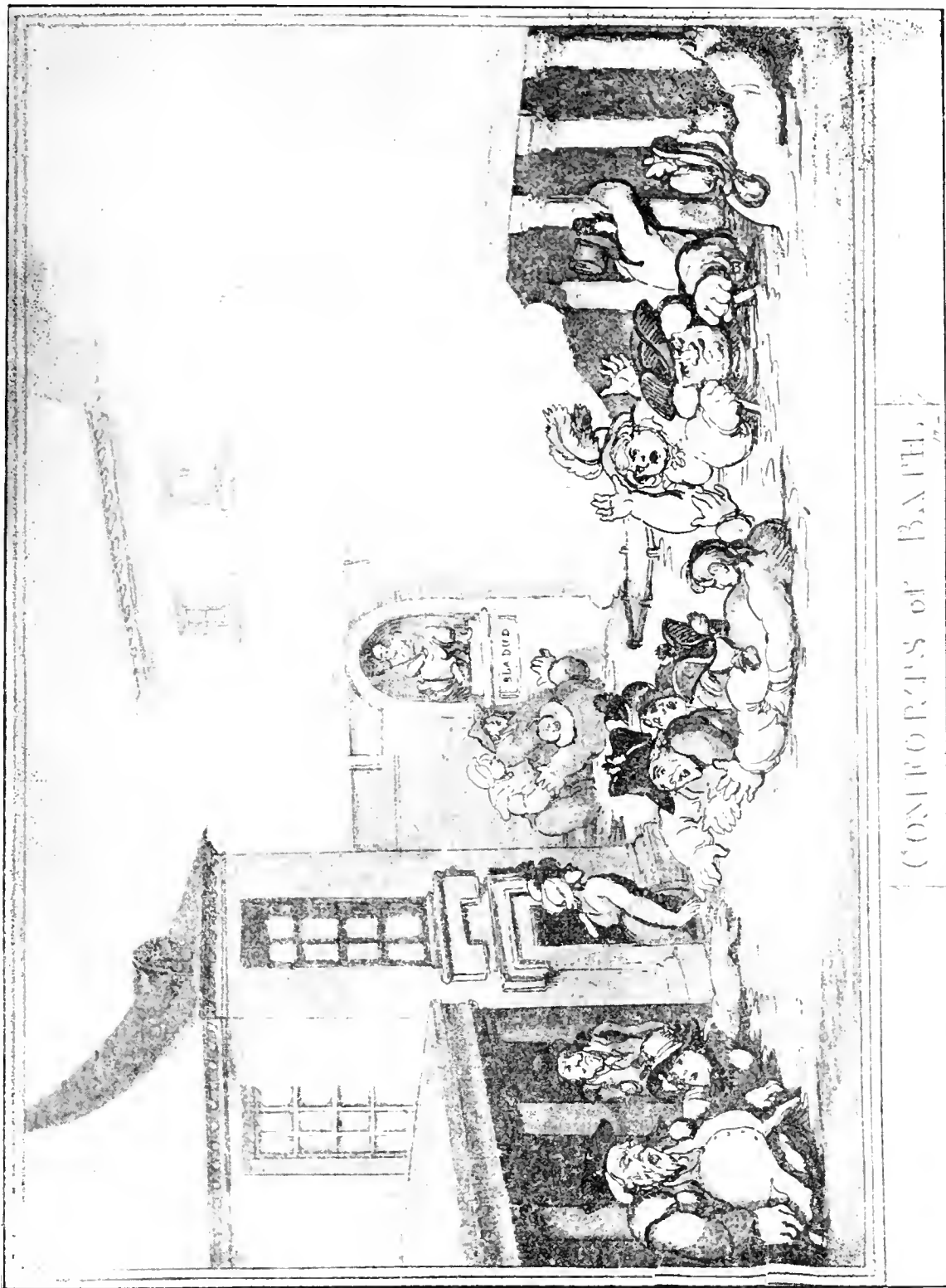
The custom of drinking the waters appears to have been re-introduced in 1572, when the practice was advocated by Dr. Jones, the author of a curious old book on the baths, entitled, "The Bathes of Bathes Ayde, wonderfull and most excellent agaynst very many sicknesses." Drinking the waters ultimately came to be considered so important a form of administering them, that, at the close of the Seventeenth Century, the Corporation decided on building a Pump Room.

Then dawned the great fashionable era of Bath, when Royalty and all the famous people of the period flocked into the City, large numbers in search of health, others unable to withstand the attractions of its society. During succeeding years Bath claimed as its citizens all the brighter ornaments in the world of science, art and literature.

Right from the time of the visit of Queen Elizabeth in 1574, the City's connection with Royalty has been a close and intimate one. Queen Anne of Denmark visited the City both in 1613 and 1615 ; in 1644 Queen Henrietta, wife of Charles I., came for the benefit of the waters ; and in 1663 King Charles II. brought Queen Catherine here for the same purpose. The visit of Queen Anne, however, with Prince George, her consort, in 1702, greatly increased the reputation of the waters, and this was followed, in 1734, by a visit from the Prince of Wales, father of George III., who presented to the City a beautiful silver gilt salver and loving cup ; while Queen Charlotte resided in Bath in 1817 and held daily levees in the New Pump Room. At that time Her Majesty lived at 93, Sydney Place, and His Majesty King William IV., then Duke of Clarence, occupied No. 103, a house at the other end.

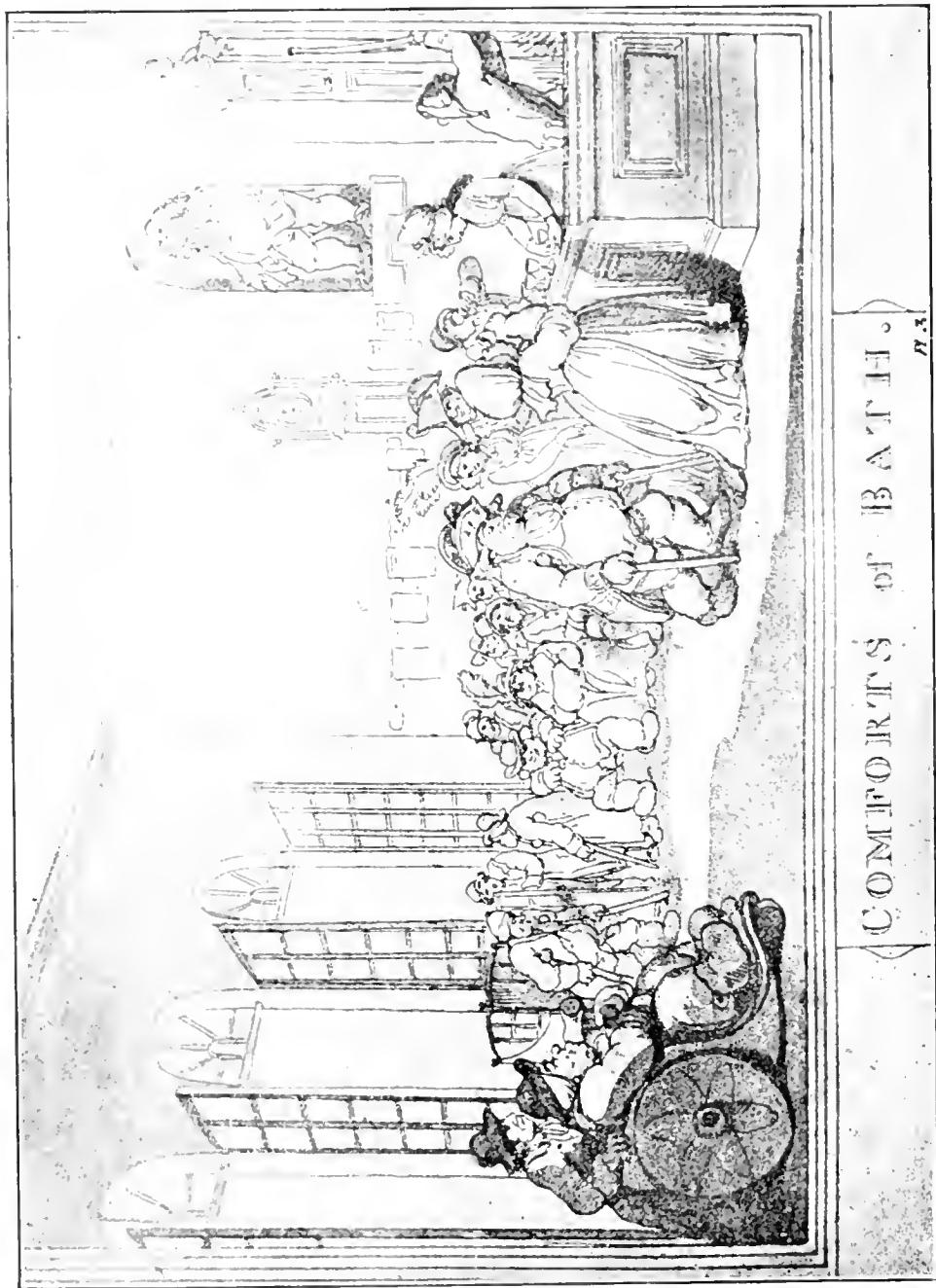
To venture further upon the names of visitors to Bath during this memorable era would be to run over the literary and social annals of the century. There can be no doubt that the wonderful change which was brought about in the fame and fortunes of the city was due in no small measure to the social administration of Beau Nash, the famous Master of the Ceremonies, for until the commencement of his rule the reputation of Bath had sunk to a very low ebb, and but for the Baths would probably have dwindled to the condition of a mere village. Under Nash's reign we have the first glimpse of Bath as a modern spa, and the introduction of properly organised entertainments for the reception and entertainment of visitors. Instead of a wretched band playing to country dances upon the green in the Orange Grove, he organised a good one and placed it in the Pump Room. Handsome Assembly Rooms were built and regular dances and receptions held, in the conduct of which Nash was a thorough and much needed autocrat. He may be said to have appeared just as such a man was needed as a controlling power in a disorganised community, and as the tide of fashion set in the direction of the city at this time with resistless force, it will be readily seen what importance attaches to the period of his reign in connection with the city's general revival. Not only did the fame of the waters become world-wide and attract by their healing virtues all the world of fashion, but aided as Nash was by the munificence of Ralph Allen and the architectural genius of the Woods, a new city was raised; mediæval Bath was swept away and modern Bath took its place. Speedily there rose those fine streets, squares and crescents which impart to the fair City to-day so much architectural dignity, and which, combined with the charms of nature in an exceptional degree, still retain for it foremost rank among the most beautiful cities of the world.





CONTOURS OF BATH.

THE KING'S BATH IN THE 18TH CENTURY.
(from a drawing by Rowlandson.)



COMFORTS of BATH.

PL. 3.

THE PUMP ROOM IN THE 18TH CENTURY
(from a drawing by Rowlandson.)

BATH AS A MODERN SPA.

But while the early history of Bath as a Spa may be a subject of peculiar fascination to the ordinary reader, among members of the Profession, to whom the present handbook is dedicated, a far greater interest naturally attaches to the City's existing title to fame. The improvements and additions to the Bathing establishments of recent years, with the introduction also of every appliance which science and experience can suggest in administering mineral waters, render it no longer a necessity for English people to visit foreign Spas in order to undergo a "cure." And here it is important to quote the opinion of the *Lancet* on the same point: "The conclusion must undoubtedly be arrived at that Bath possesses in a most satisfactory manner all the requirements of a valuable resort for the treatment of disease by hydro-therapeutic measures. There is no real reason why patients suffering from diseases presently to be enumerated should take the long journey to the continental Spas when equally good results can be obtained at Bath. In addition, by not leaving their own country they will enjoy their accustomed mode of living within the limits placed upon them by their medical advisers and they will have the benefit of English cooking and English hotels and apartments. Bath is within easy reach of London and other large towns, and thus the separation of members of families from each other (unless specially indicated) need not be complete or prolonged.

THE BATHING ESTABLISHMENTS ARE OPEN ALL THE YEAR ROUND AND CAN, THEREFORE, BE VISITED WHEN MANY OF THE CONTINENTAL RESORTS ARE CLOSED." In a subsequent paragraph the *Lancet* says: "IT IS DOUBTFUL WHETHER AT ANY SPA SUCH A COMPLETE AND WELL-APPOINTED BATHING ESTABLISHMENT CAN BE FOUND."

THE BATHING ESTABLISHMENTS.

THE BATHS OF BATH comprise in addition to the famous Pump Room, where the waters are drunk, numerous establishments for public and private bathing, each in close proximity to the other, and all supplied from the same springs.

THE KING'S AND QUEEN'S BATHS adjoin the Grand Pump Room and conveniently communicate with it at its southwestern end. This suite of baths is very extensive, comprising over 50 private baths and dressing-rooms, a large and luxurious cooling room, smoking room, and other handsome apartments. Invalids may be set down, if necessary, at the very door of the dressing room of the bath, the corridors in each establishment being sufficiently wide to admit Bath chairs, while there is also the advantage of being able to pass from the baths and cooling room into the Grand Pump Room, and on into the Concert Hall and Roman Promenade without going into the open air.

On this site is the famous mediæval King's Bath, in the centre of which rises the principal spring. This historic bath, which in previous centuries yielded so much material for the pen of the satirist and for the purposes of caricature, is preserved intact in all its famous features and while being a unique object of interest, is a permanent reminiscence also of the days when Nash was "King."

THE NEW ROYAL BATHS.—This suite is likewise extensive, the numerous private baths being arranged right and left of a spacious and handsome corridor. At the end of this corridor are luxurious appointed Cooling Rooms, Smoking Room, and a balcony overlooking a large Swimming Bath, where visitors may enjoy a plunge in the thermal waters, reduced by admixture with cooled mineral water to a temperature of 84°.

THE OLD ROYAL OR HETLING BATHS comprise, in addition to the variously appointed private baths, a Pump Room, where provision is made not only for the supply of the mineral water for drinking at the natural temperature of the spring, but of the same superheated by steam. A thermometer is attached to each supply, so that the patient is able to secure from the attendant a service at the exact temperature prescribed by the physician. Here is another fine tepid Swimming Bath, and also the old free "Hot Bath," which succeeded the still older Leper's bath in 1777.



CHRISTOPHER ANSTEY

From the original by William Hoare in the Guildhall.



RICHARD NASH

*M.C. of Bath 1704-1761, from the portrait in the Pump Room
(after William Hoare).*

THE KINGSTON BATHS afford cheap facilities for mineral water bathing for men only.

Some idea of the extent of the provision demanded for the supply of the mineral water to the various baths, douches and sprays, may be formed from the fact that the pipes for this service would, if extended continuously, reach no less than 40 miles

The bathing establishments are open all the year round, and though the seasons of spring, autumn and winter are the more popular, the waters are equally efficacious at any period of the year. Just as the attacks of those diseases for which the springs are beneficial make their ravages at all times, so are the Bath Waters at any season applicable to their relief.

ANALYSIS OF THE WATERS.

The following important observations on the chemistry of the springs, with analysis, are extracted from the report of the *Lancet* special commission :—

The thermal springs of Bath are three in number. It is probable that they have a common origin, but the three outlets are perfectly distinct, though they are within short distances of each other. The temperature differs only three degrees, the hottest, the Old Royal Spring, being 120° F. The chemical composition of the waters is analagous, but there are some differences in the amount and ratio of the constituents of the three waters. The interesting question relating to the explanation of the formation and origin of the thermal waters is one with which it is hardly within our province to deal.

The following analysis of the King's Bath Spring was made at the *Lancet* laboratory :—

	<i>Grains per gallon.</i>	<i>Milligrammes per litre.</i>
Calcium sulphate ..	102·880	146·97
Strontium sulphate ..	2·030	2·90
Sodium sulphate ..	23·500	33·57
Potassium sulphate ..	0·207	·30
Calcium carbonate ..	8·750	12·50
Magnesium chloride ..	15·800	22·57
Sodium chloride ..	9·080	12·97
Lithium chloride ..	0·120	·17
Silica ..	1·960	2·80
Bromine ..	traces	traces
Nitrates ..	none	none
Carbonate of iron ..	1·600	2·29
Total Mineral matters .	165·927	237·04

The Hon. R. Strutt has discovered Radium both in the waters and in their deposits, and Sir James Dewar has recently demonstrated the presence of the extremely rare elements Krypton and Xenon in the gases given off by the springs. Gases gurggle through the water, and it was here that Professor Sir James Dewar collected a large quantity, from which, by the process of liquefaction by freezing at the Royal Institution, he succeeded in separating argon and helium. The former gas proved to be present to the extent of 140 parts per 10,000, and the latter in the proportion of 12 parts per 10,000.

The characteristic constituents of the thermal waters of Bath are the sulphates of the alkalies and alkaline earths together with the salts of magnesium and sodium.

Quoting once more from the *Lancet* special commission :—
 “The thermal waters of Bath exert a distinct solvent action on uric acid. In our experiments, for example, it was shown that Bath water dissolved over five times the amount of uric acid that distilled water would similarly take up at blood heat—i.e., just under 100° F. Since the waters are drunk hot and used hot for bathing purposes this fact may have an important relation to the therapeutics of Bath waters in the treatment of chronic gouty affections and rheumatism.”

THE INTERNAL USE OF THE WATERS.

THE GRAND PUMP ROOM is an elegant and finely proportioned apartment in the Renaissance style, where water drinkers are served from a many-sprayed fountain, supplied direct from the King's Bath spring. In a semi-circular recess is a statue of Nash, and beneath it the famous Tompion clock, to which Dickens alludes in the pages of “Pickwick,” and which has been the silent witness of all the strange, eventful scenes enacted at this rendezvous of fashion since the days of Queen Anne. It was given to the city by its maker, Thomas Tompion, in 1709, and occupied a place in the first Pump Room, built under the auspices of Beau Nash. In the present Pump Room Queen Charlotte held daily levees during her residence in Bath in 1817. The room is now set apart exclusively as a lounge for water drinkers, while exhibited for the inspection of visitors are numerous and valuable relics of a past civilization, recovered from time to time during excavations upon the site of the Roman Thermae.



RALPH ALLEN

From the original by William Hoare, in the Guildhall.



JOHN WOOD, Senior. ?

*From the original picture at the Royal Literary and
Scientific Institution.*

*(Some authorities express doubt whether this portrait
represents the famous architect).*

Drinking the water in the open air has always been recognised as one of the most enjoyable features of Continental spa life, and the inauguration of the Hot Mineral Water Fountain and Colonnade in the Institution Gardens indicate that not only in the autumn and winter, but also in the spring and summer, will the comfort and enjoyment of visitors to Bath be considered.

It is interesting to recall the remarks of John Wood, made in the Eighteenth Century on the summer season at Bath. In his "Description of Bath" he says: "One would think that the cures recorded by Dr. Peirce, Dr. Guidott, &c., to have been effected by the Warm Waters of Bath in all the Hot Months of the year, would be the means, at least, of continuing their trial in the like cases, and in the same Season, especially since many People, by waiting for an imaginary proper Season, have lost either Limb or Life before it came."

There have been indications for some time that the "season" at Bath was extending, and the opening of this Garden Fountain will do much to show that the cure can be taken quite as pleasantly, and with equal benefit, in the warmer months of the year.

The Institution Gardens are rich in associations of the past. The Monk's Mill, once the property of the monks of Bath Abbey, stood near the Colonnade. The Roman culvert runs underground near by. In the Eighteenth Century the earliest of the Assembly Rooms was built on the site now occupied by the Royal Literary Institution, and the grounds, then "Harrison's Walks," were a fashionable resort in the days of Beau Nash.

THERAPEUTIC ACTION.

It is difficult to estimate the relative therapeutic values of drinking the waters and bathing in them, as the two methods are usually adopted simultaneously.

When fresh, the water is clear and sparkling, without odour, and with a very slight saline chalybeate taste which is by no means unpleasant. The quantity to be taken is, of course, regulated by the physician. As a rule from half a pint to one and a half pints are ordered daily, but more is frequently required, especially in those cases where a general flushing of the system, a washing out of the alimentary canal, and a dilution of the secretions of the liver and kidneys is desired.

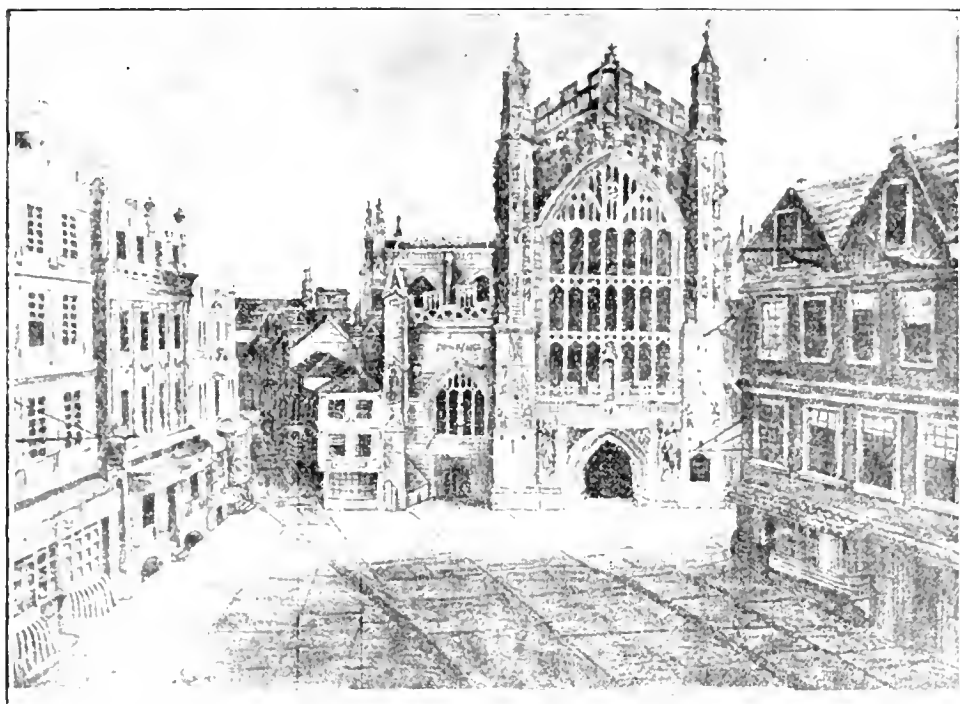
The therapeutic action of the waters depends partly, no doubt, in common with ordinary water, upon the quantity taken. Beyond this, however, it has undoubtedly a peculiar value of its own, due in all probability to the Radio-activity it possesses, and which has been clearly demonstrated.

It is a distinct diuretic, its therapeutic use in this direction being beyond question ; and it has also a special solvent action upon urinary concretions, particularly renal calculi. It is probably upon these facts that much of its virtue depends in the treatment of gout, not only in the anthrodox forms of that disease, but also in its many irregular manifestations, and in those other joint affections also which result from the arthritic diathesis. In connexion with these remarks the experiments recorded in the *Lancet* analytical report as to the solvent action of the waters on uric acid are suggestive. The waters also contain a very small quantity of iron, and the benefit which anemic patients derive is no doubt due to this being in a very assimilable form.

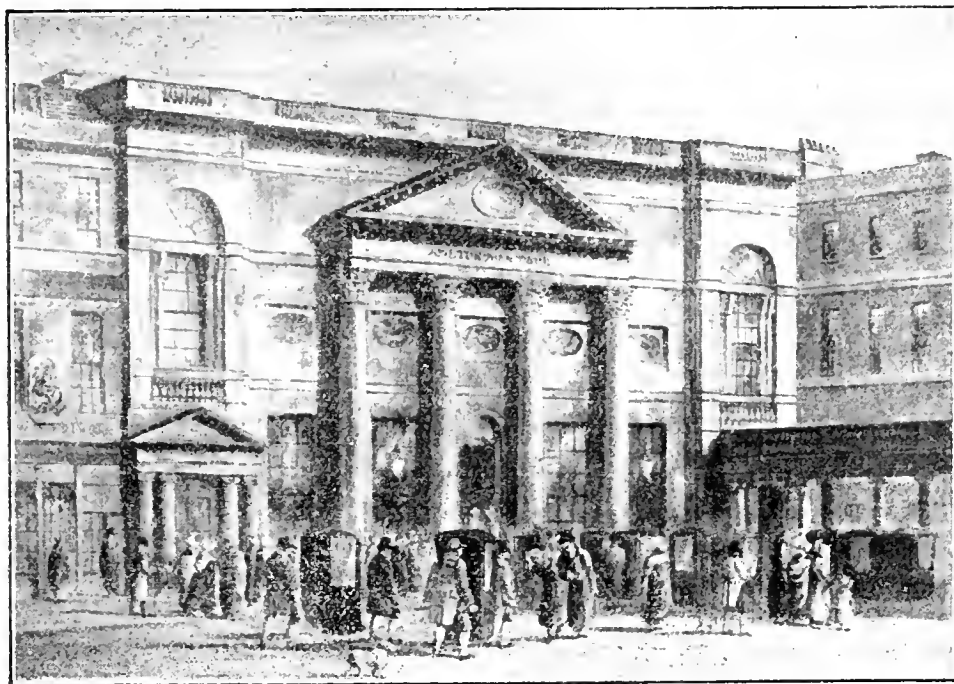
DRINKING THE WATERS AT HOME.

Many of the patients who visit Bath for the cure would be benefited by a continuation of the treatment after their return home, and for this purpose the mineral waters are bottled and aerated. "Sulis Water," so named from the Roman spa, Aquæ Sulis, is bottled with the greatest care in its natural state as it issues from the spring, and the most modern methods and machinery are alone employed. The bottling rooms, lined with white tiles to ensure cleanliness, occupy a considerable area under the famous Pump Room, and medical men especially are invited to inspect the process.

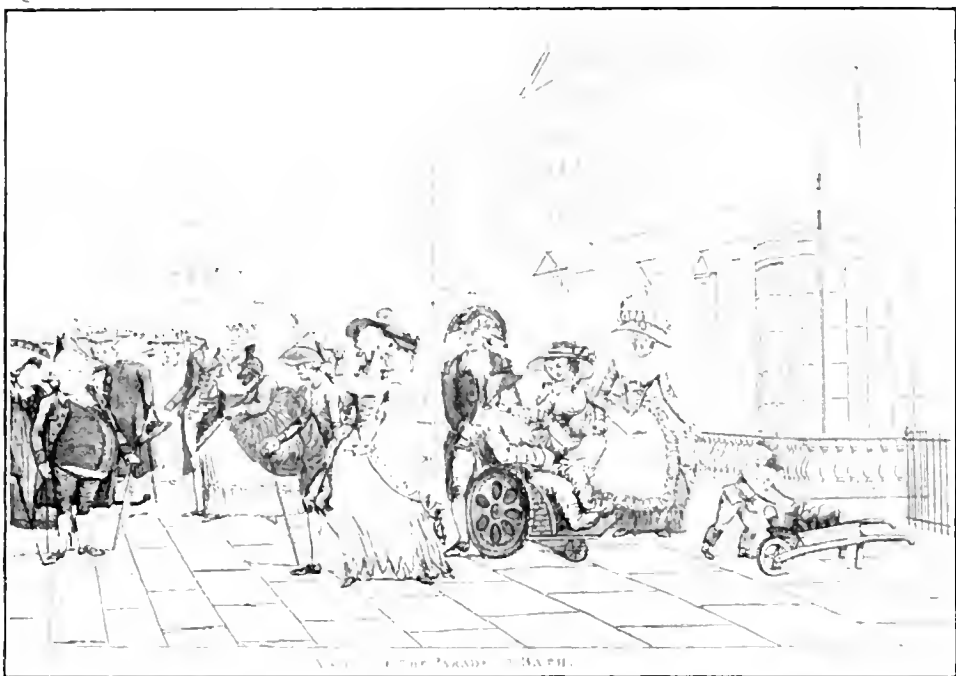
The mineral waters of Bath contain, among other constituents, iron in a very valuable and active, but very unstable form—that of the carbonate. Like some other ferruginous waters, the ordinary Bath water speedily throws down the carbonate of iron contained in it in the form of an almost inert oxide, which causes the well-known rusty discolouration of the drinking-glasses used at the Pump Room. But this change of carbonate to oxide does not take place in the presence of carbonic-acid gas, and advantage has been taken of this chemical fact to saturate the waters with this gas, and thus to insure their remaining (except as regards temperature) in the active condition in which they issue from the



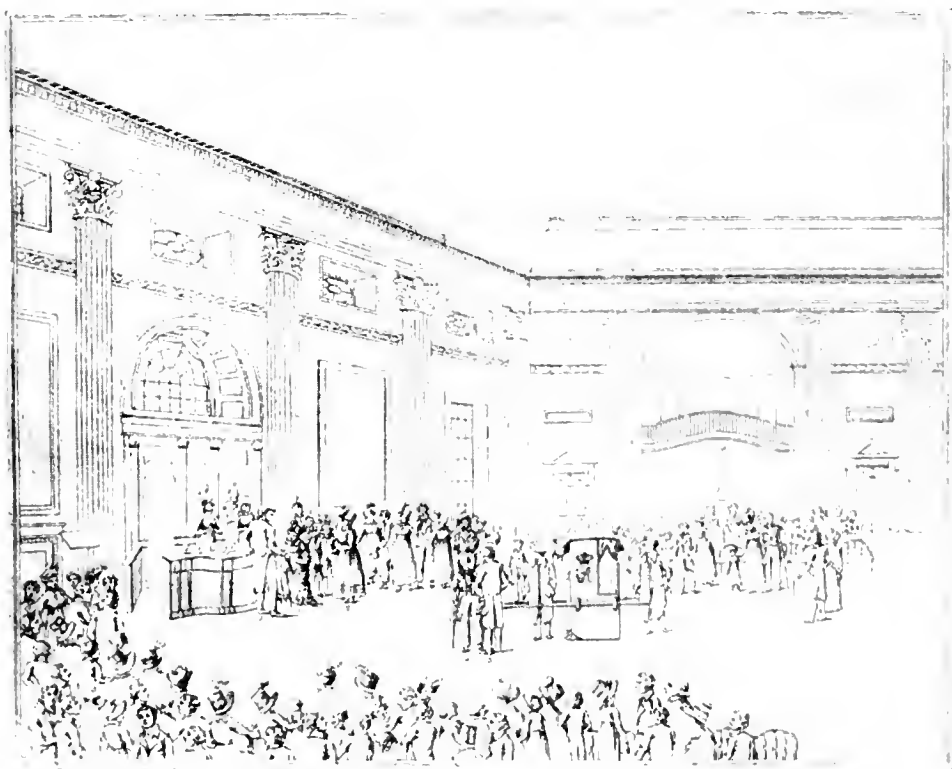
BATH ABBEY. 1750.



THE PUMP ROOM (*cir.* 1820).



A VIEW OF THE NORTH PARADE
(from an old print in the possession of the Baths Committee).



QUEEN CHARLOTTE'S LEVEE IN THE PUMP ROOM, 1817
(from a contemporary drawing).

spring. The aeration is judiciously and well conducted, and careful analysis proves that, with the exception of the loss of certain volatile constituents and emanations, the aerated water is absolutely identical with the Bath Water as it flows from the spring, plus the addition of carbonic acid gas, with which, like soda water and other mineral waters it has been charged.

Analysis of Sulis Water by Dr. JOHN ATTFIELD, F.I.C., F.R.S.

			<i>Natural.</i>		<i>Aerated.</i>
Bicarbonate of Lime	..	..	7.84	..	7.66
Sulphate of Lime	..	..	94.11	..	95.07
Nitrate of Lime	..	..	0.56	..	0.60
Bicarbonate of Magnesia	..	..	0.56	..	0.47
Chloride of Magnesium	..	..	15.24	..	15.02
Chloride of Sodium	..	..	15.16	..	15.38
Sulphate of Soda	..	..	23.14	..	22.85
Sulphate of Potash	..	..	6.70	..	6.90
Nitrate of Ammonia	..	..	1.06	..	0.90
Carbonate of Iron	..	..	1.22	..	1.15
Silicia	..	..	2.71	..	2.61
Total Solid Constituents					
grains per gallon			168.30	..	169.60

Besides its medicinal use, the Water is very largely used as a table water; it is brilliant, pure, and sparkling, and is as agreeable to the palate as it is pleasing to the eye, and it mixes well with light wines and spirits. As it contains only about one grain of carbonate of iron in a gallon, it may be very safely and advantageously taken as a table water by vast numbers of people who do not stand in need of medical treatment.

Millions of bottles of foreign waters are consumed every year in this country, many of them of far less therapeutic value than Sulis and as a British product and industry, this water has strong claims to the support of every member of the medical profession in the British Empire.

Sulis Water may be ordered from the Sulis Department, Hot Springs, Bath, at the following prices:—

<i>Original Cases.</i>		<i>Per case.</i>		<i>Per doz.</i>
50 Bottles	..	22/6	..	5/6
100 Half-bottles	..	35/-	..	4/6
100 Splits	..	25/-	..	3/-

APPARATUS AND APPLIANCES IN USE AT THE BATHS.

At Bath, the Hot Springs are vested in the Corporation of the City, and no expense is spared in making the baths and the surroundings not only as complete as possible, but even luxurious. Everything that can add to the comfort of the bathers is provided. Experienced attendants are in all parts of the Bathing Establishment, and the appliances in use enable the mineral waters to be administered in a great variety of ways. It is claimed that the outward application of these naturally hot waters, has a therapeutic effect differing from that produced by similar methods with ordinary, or even mineralised, waters which have been heated artificially.

The Bath thermal waters have been clearly demonstrated to possess radio-activity in a marked degree. We know very little of the effect of these emanations in natural mineral waters; but the way in which they are rapidly dissipated by artificial heat, and the favourable results produced here, suggest that it is in this connection that the therapeutic advantage of these waters is to be sought.

THE DEEP BATHS have always been a special feature in the Bath system, the yield from the springs being so abundant as to enable the construction of private baths holding in some cases 800 to 900 gallons of water, with an average depth of about four feet six inches. They are large enough to enable the patient to move freely about, and brass rings for the bather to hold on to are fixed in the walls. There are marble seats attached to the sides of the bath. The approach is by a flight of steps with brass rails on either side. Whilst in the bath the bather is almost entirely submerged. These baths are supplied with powerful douches, which can be applied to any part of the patient's body while in the water, the temperature and force of the douche being regulated with perfect ease.

For patients who from physical causes are unable to walk down the steps of the Deep Baths, chairs are provided, which, by means of pulleys, can be brought to the door of the dressing-room for the reception of the bather; the chair is then returned to its position over the bath and gently lowered by hydraulic power. The movement is wonderfully even and easily controlled. After a few baths it is often possible for the patient to get out of the chair whilst in the bath, and supported by the



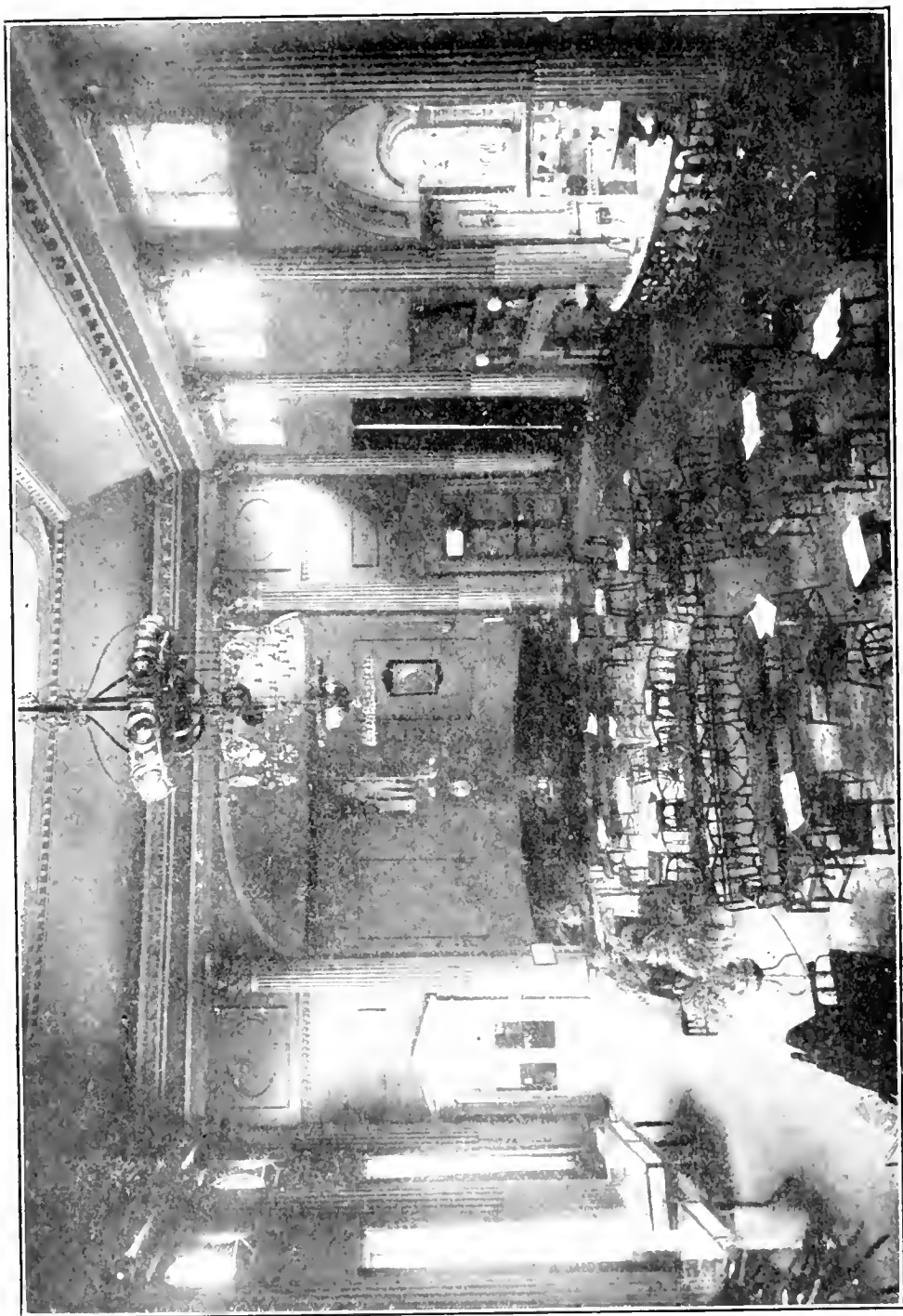
BEAU NASH AND THE FOREIGN INTRUDER IN THE "PUMP ROOM".

Disquiet of Bone-ash (Calcium Phosphate) on finding that the little paragon upstairs, Monsieur Radium (discovered by Madame Curie) is also present in the Thermal Springs of Bath in spite of the most stringent and exclusive rules for!

[The Hon R J. Sturt has detected the presence of Radium in the waters of Bath. "The water in the presence of Radium is said to be a little more sensitive to the action of the sun than the water of the Thermal Springs of Bath."—*Daily Paper*, 1898.]

ORIGINAL DRAWING for "PUNCH" by E. T. REED, Esq.

MR. PUNCH ON RADIUM IN THE BATH WATERS
(from the original drawing now in the Grand Pump Room,
Bath).



THE GRAND PUMP ROOM.

water and holding on to the rings, he can gradually begin to move the limbs. These baths are largely used for "under-current douching," which has been found most valuable in the treatment of sciatica. The temperature of the bath can be maintained by the natural heat of the waters at 110° , but if this is considered too hot, it is cooled by means of cold mineral water to the required temperature. The composition of the water is thus not altered.

THE RECLINING BATHS.—These are used in certain cases instead of the deep baths, some patients being unable to take advantage of the latter. Each contains about 150 gallons of water and is provided with a hose and nozzle, so that the under-current douche can be applied. The arrangements for regulating the temperature are the same as in the deep bath. Massage is sometimes employed in connection with these baths.

AIX DOUCHE MASSAGE BATHS.—These have been adopted from Aix-les-Bains. The rooms set apart for this process are admirably arranged; each douche-room has two or three dressing rooms, so that a large number of patients can be attended to without any unnecessary waiting. Douches, sprays, and showers of many varieties are arranged round the walls, and there is a double water supply to each, consisting of hot and cold mineral water, so that the temperature can be accurately regulated. The furniture of the room consists of a wooden chair and stool, both of which are sprayed with hot water before use. Whilst the bath is proceeding the floor is covered with a layer of water four inches deep, the excess constantly escaping through one corner into the Roman culvert. If two attendants are present each douches the patient with water at the stipulated temperature whilst applying massage. If one masseur only is employed a stream of water is passed through a large rose and plays over the back or chest of the patient whilst one or other is receiving the rubbing by the attendant. The time of the bath can be judged by a sand glass fixed to the wall of the room. Afterwards the patient is often submitted to a shower or needle douche at any desired temperature. He then returns to the dressing-room, where he is "packed" by the attendant and is gradually allowed to cool, completing the process in one of the comfortable rooms, well supplied with literature, which are provided for the purpose.

VICHY DOUCHE—This well-known form of bath, in which massage is administered to the patient while he is lying in a recumbent position while subjected to a needle or "rain spray"

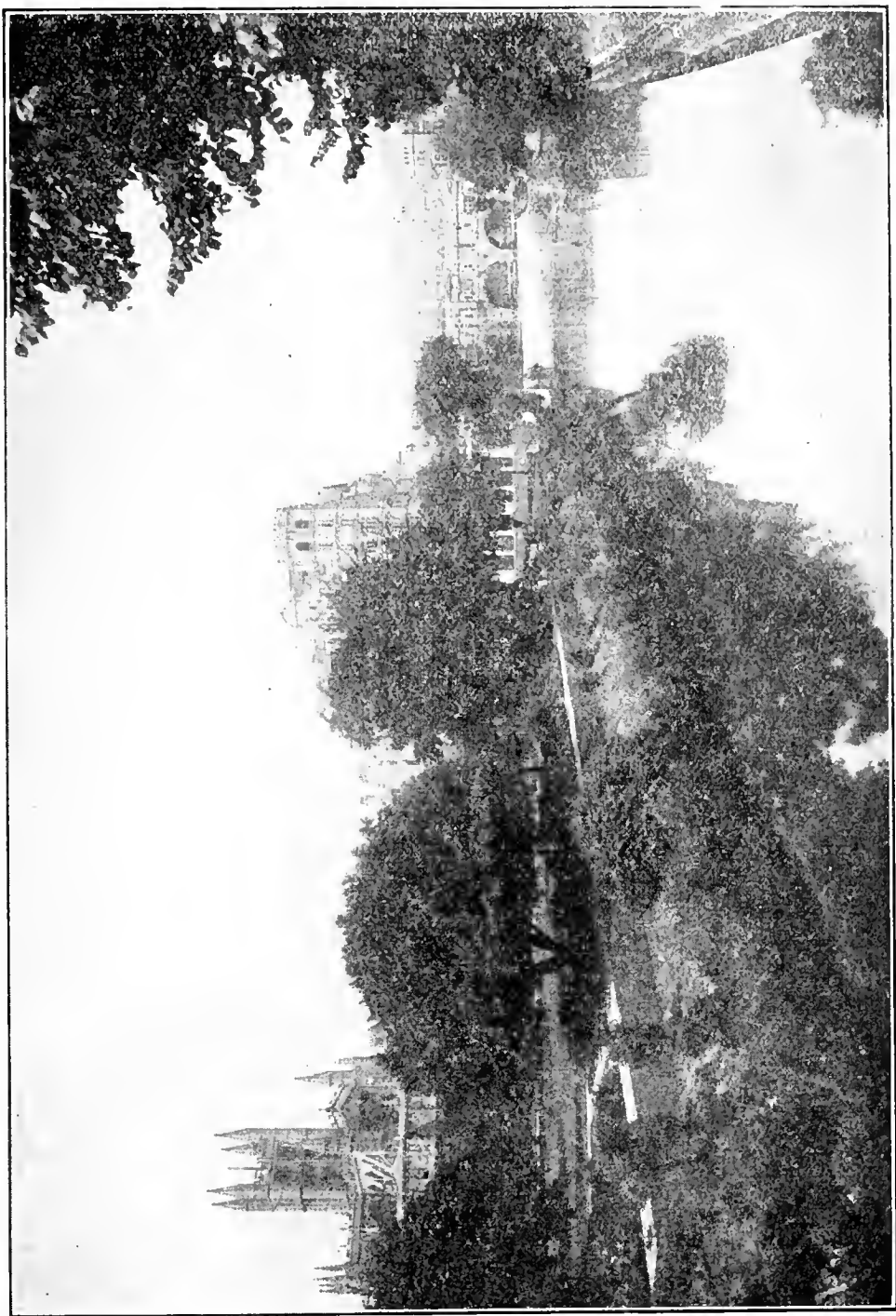
douche, is often of the greatest service. It is very similar to the preceding bath, but it is more convenient when massage is to be administered to the trunk or abdomen.

THE LOCAL DOUCHE.—What is known at Bath as a “dry douche,” distinguishing it from the “wet douche” when the patient is immersed in the bath, is employed when it is undesirable to bathe the patient. The apparatus is so arranged that a strong current of water at a temperature of 115° is sprayed over an arm or leg through a rose, the rest of the body being protected and kept dry ; in fact, the individual operated on does not undress. A great advantage is that the heat of the water being a natural heat there is no fear of the temperature being too high. This method is found useful in some chronic joint affections.

THE SCOTTISH DOUCHE.—This is used in the same room as the douche-massage, and consists of two hoses and nozzles, by means of which strong streams of hot and cold water can be alternately turned on to the patient. It is useful in various conditions which require a stimulating treatment, and in practice is sometimes used in conjunction with the Aix massage douche.

THE BERTHOLLET, OR NATURAL VAPOUR BATH, may be local or general. Any part of the body—a leg, an arm, or a single joint—can be submitted to the influence of the steam derived from the thermal waters. The temperature can be raised by admixture of ordinary steam, but the usual temperature is 110° . This appliance is frequently adopted in cases of acute gout ; the pain is not only relieved but the attack is shortened. In the same room is the general Vapour Bath, consisting of a wooden box with a round hole in its movable lid, so that the patient is entirely shut in with the exception of the head. The hot vapour rises and free perspiration soon ensues. Some of the subacute and chronic forms of eczema, in which bathing is forbidden, are treated by the natural vapour with admirable results ; and the same may be said as to cases of lichen, acne, psoriasis and senile prurigo. In the last-named the intense irritation is often markedly relieved.

From a therapeutic point of view, experience of both systems has shown that the bath has a much greater curative effect than the “Russian” and other forms of vapour baths in use elsewhere. There is no doubt that this advantage is due to the radio-activity and natural emanations of the thermal vapour.



INSTITUTION GARDENS AND RIVER AVON.



DEEP BATH WITH CHAIR.

MEDICATED BATHS are also employed, such as pine, sulphur, bran, and oatmeal, the necessary ingredients being added to the thermal waters. Of these the Sulphur bath is certainly the most useful. It is made by adding to the waters a solution of sulphide of potassium, and is of very marked benefit in skin complaints, and more especially in gouty eczema.

LIVER PACK.—A most useful form of treatment in many liver complaints. A hot application of mustard bran, or mustard and linseed, is applied locally, and is followed by a needle spray douche of the thermal waters; and, used in proper cases, is of the greatest benefit.

INHALATION ROOM.—There are elaborate appliances fitted at the Queen's Baths for treating chronic laryngitis and certain other forms of throat diseases, by means of an atomised spray of mineral water. If it is thought desirable these sprays can be medicated with the natural sulphur waters of Challes, or with the arsenical waters of La Bourboule. The former of these, which is most often used, is of special benefit in chronic gouty conditions of the throat. This spray is also found useful in those suffering from weakness or loss of voice due to excessive public speaking or other causes. There are also apparatus for douching the nose and ears. For the treatment of certain external forms of eye disease, an ingenious form of spray is employed. A fine jet of mineral water impinges against a polished metal plate and breaks up into a fine cloud, thus enabling the water to be applied to the eyes in the gentlest and most enjoyable manner.

PLOMBIERES DOUCHE—This treatment for mucous-membranous colitis and similar diseases consists of intestinal douching with the mineral water, followed, in the majority of cases, by a reclining bath and an undercurrent "Tivoli" douche to the abdomen. This is given in the form of a spray under water, with the temperature and pressure accurately regulated and controlled. The radio-active waters of Bath appear to be specially suitable for this purpose, and the results already obtained are eminently satisfactory.

THE BOURBON-LANCY BATH.—The special form of douching as carried out at Bourbon-Lancy, for reducing high arterial tension has been installed. The douching is combined with a reclining bath and massage; water-drinking and other aids forming part of the treatment. The treatment is specially indicated in some cases of high arterial tension and early stages of sclerosis.

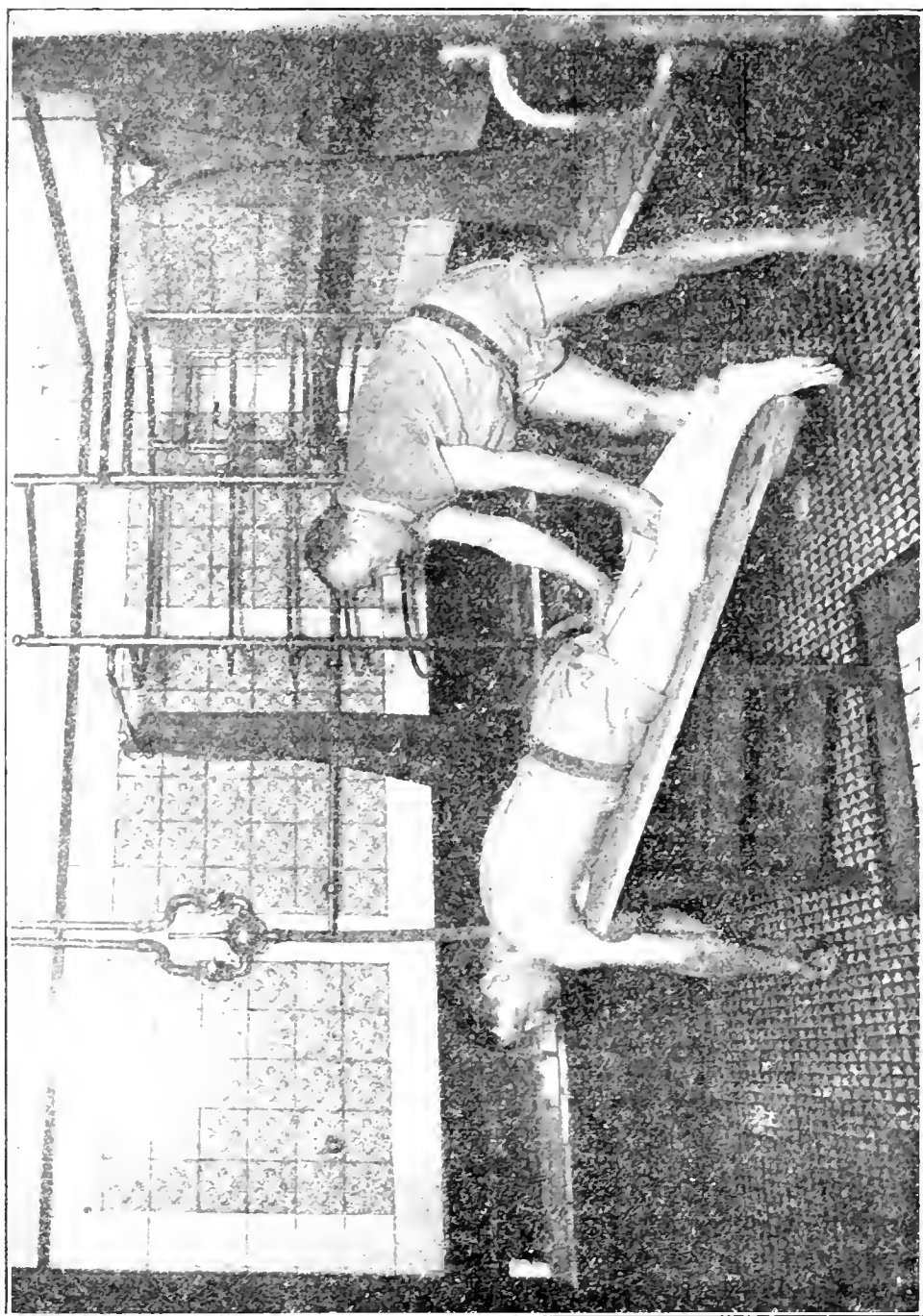
THE NAUHEIM TREATMENT is in use, chiefly for chronic diseases of the heart and the after effects of excessive strain, and more particularly in functional and neuro-muscular forms of disease. Two methods for preparing the Sprudelbad are adopted. In one of these, by means of an elaborate plant specially erected for the purpose, the mineral water is aerated by carbonic acid at a considerable pressure. A reclining bath is employed, round the foot of which (at the bottom of the bath) and along the sides, for about three-quarters of its length, runs a perforated pipe through which is forced, at varying pressures, the aerated water. At the foot of the bath is the pipe through which the hot water enters.

The second method adopted is to add to the thermal water, in an ordinary reclining bath, chloride of calcium, and then to place effervescing tablets at the bottom of the bath. A rapidly perceptible slowing of the pulse generally follows, with an increase of its volume, the methods adopted in either case contributing to form a bath which gives strength and fresh vigour to the invalid.

The introduction of ELECTRIC HOT AIR BATHS (Greville System), for use in conjunction with the mineral waters, has been attended with very gratifying results, particularly in cases of stubborn rheumatic and arthritic cases, where elimination of the poisonous matter which causes the trouble is often effected more vigorously than by ordinary bathing. The apparatus is absolutely under control as regards the temperature, and a heat may be employed of from 200° – 350° Fahr. or more. The ease with which it can be applied locally is also an advantage over all other hot-air baths. Provision is made for the treatment of whole or half body, or for local application, in conjunction with the mineral douche, or an ordinary thermal course.

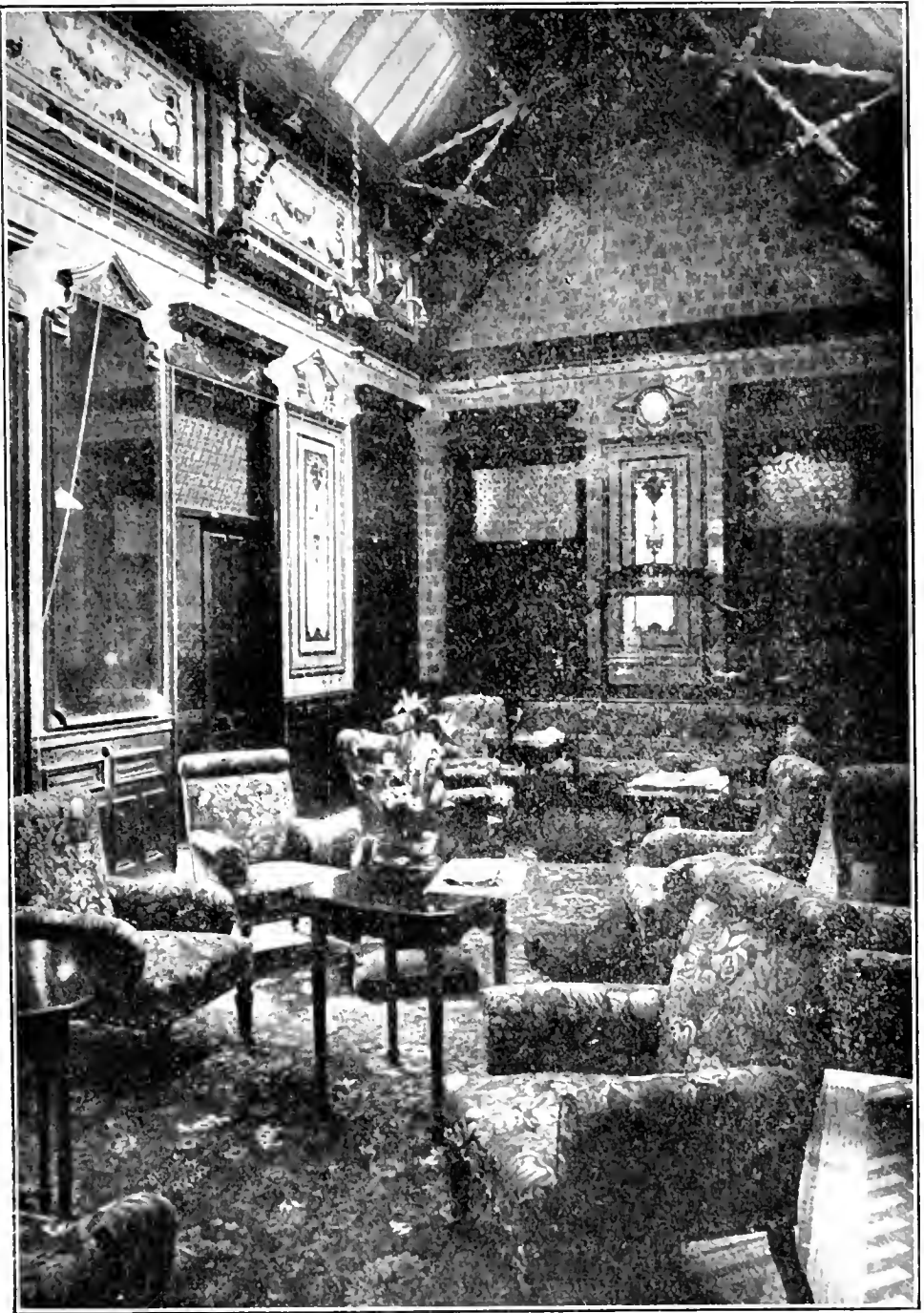
ELECTRIC WATER BATH.—Electricity is also employed in a reclining bath through the medium of the mineral water. A sinusoidal current is used, and this bath is of special service in some forms of neuritis and other conditions, where stimulation of the nerves and muscles is desired in conjunction with the action of the thermal waters. The current can be applied locally if required, and the apparatus is under perfect control.

SWIMMING BATHS.—In addition to the baths and appliances already described, there are large and admirably appointed mineral water swimming baths, which afford an agreeable form of bathing in conjunction with the Aix Douche-Massage in cases where patients are ordered a free use



AIX DOUCHE MASSAGE

(showing position of patient for massage of the gluteal, sciatic, and lumbar regions).



A COOLING ROOM AT THE QUEEN'S BATHS.

of their limbs. The largest bath is at the New Royal Baths, the dimensions of which are 80ft. by 35ft., the depth of water being graduated from three to five feet. It is an exceedingly handsome bath, tiled throughout and lighted and ventilated by a glass roof 50ft. high. The temperature is maintained at about 84° by means of a constant flow of cooled mineral water. When filled the bath contains over 50,000 gallons. There are seventeen comfortably furnished dressing-rooms, while hot towels and all toilet requisites are provided for bathers. The bath is reserved for ladies two days in the week. At the Old Royal Baths is another fine bath, 62ft. by 23ft., and $4\frac{1}{2}$ ft. deep, containing 37,225 gallons.

SECOND CLASS BATHS.—In addition to the first-class baths, which are fitted with every comfort and convenience for bathers, second-class baths are also provided, where patients of limited means can equally obtain the benefit of the Bath waters, but without the luxury of the more expensive establishments.

DURATION OF THE CURE.—As a general rule the duration of a bathing cure is from twenty-one to forty-two days, but no one period can be definitely fixed. The differences of age and disease, &c., must necessitate great variation in the course of treatment, and this, together with the details of the baths and drinking arrangements, will naturally be left to the judgment of the local medical man.

DIET.

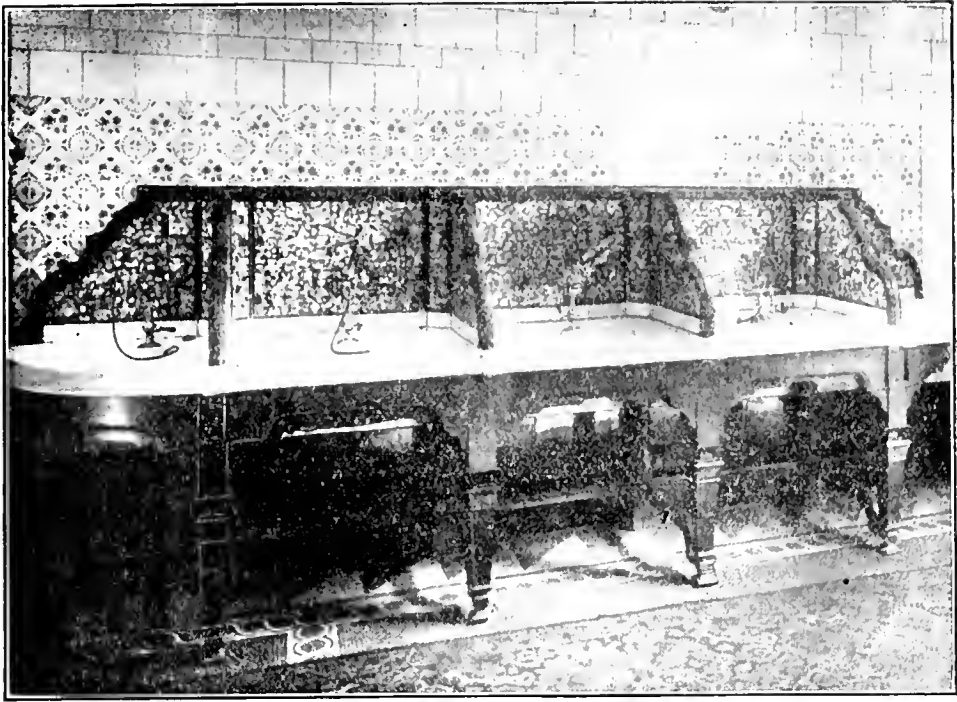
This important factor in a cure has received due recognition at Bath, and diet charts for the guidance of patients undergoing the treatment have been drawn up by the Bath Medical Committee: the special diet necessary for the individual case being marked by the doctors. The hotels and boarding-houses will always provide for all reasonable requirements in the matter of diet for visitors taking the waters, and special attention is given to the instructions of the doctor in this regard.

DISEASES MOST FREQUENTLY TREATED.

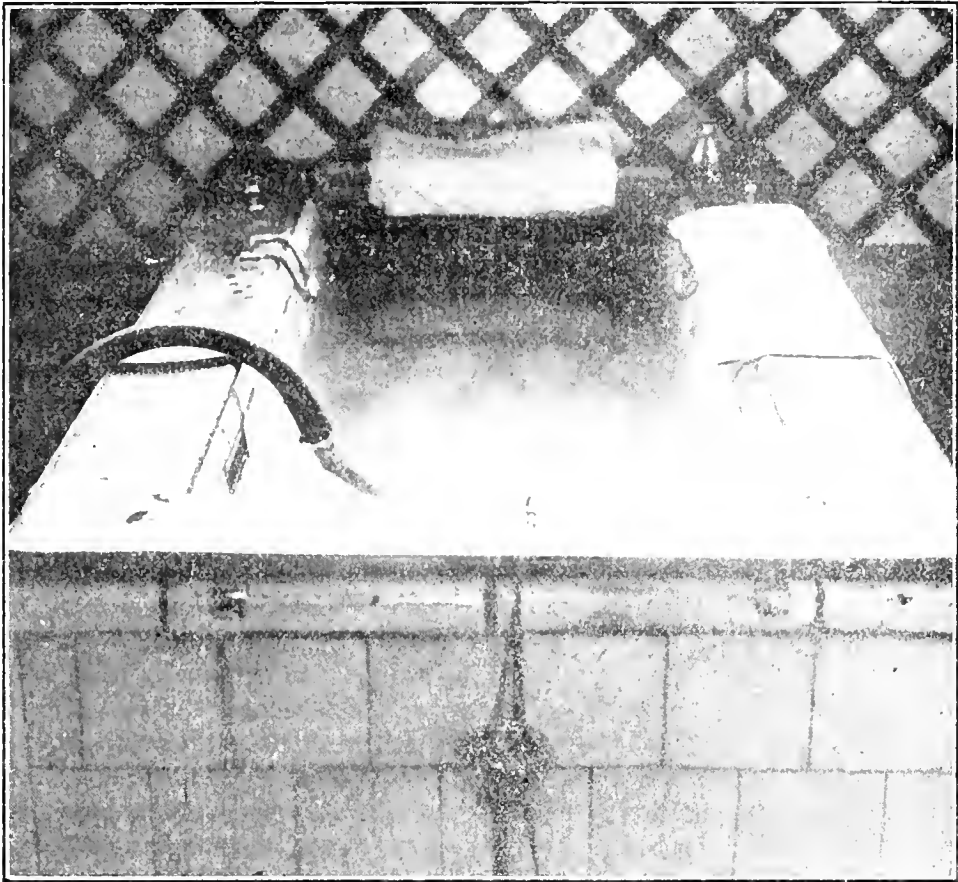
GOUT.—This disease occurring in widely-differing constitutions varies greatly in degree. Practically every patient afflicted with the complaint will benefit by a visit to Bath, and those individuals who have unsuccessfully tried other English and continental spas need not be discouraged on that account from trying a course of thermal waters here. Dr. Luff* points out that, owing to the undoubted fact that sodium salts are directly detrimental to the removal of gouty deposits those springs should be avoided which, owe their activity to those salts when the removal of the deposits is the main object to be attained. The springs which contain no sodium salts, or traces only, are the ones suitable for such cases. A reference to the analysis of the Bath waters will at once show that they would come under this category. A course of treatment, also, tends to remove or relieve various disorders which stand in a more or less close degree of causal relationship to gout, such as gastric irregularities, gastric and intestinal catarrh, acidity, constipation, portal congestion, and certain urinary disorders. In the intervals between the paroxysms, much may be done, in the way of massage and the use of the baths and local douches, to remedy the inflammatory thickenings of the tissues, and the consequent articular stiffness, contraction of tendons, &c. In gouty dyspepsia it is recommended that the waters should be sipped at a temperature of about 117° or higher, beginning with a small dose and rapidly increasing it.‡

At the "Hetling Pump Room" means are provided for supplying the thermal water for drinking at a temperature up to 150° F.; and not only the gouty but many other cases use this hotter water with advantage. In the more chronic forms, besides the vapour baths, the deep and reclining baths, and the douches, the Aix massage bath is of great use, but much care must, of course, be exercised in applying massage. Patients must not be alarmed if the early part of the treatment precipitates an acute attack of gout. If such an event happens the use of the Berthollet vapour bath has been found to give relief. Considerable relief is afforded by the use of the throat-spray in gouty pharyngitis. Undoubtedly some part of the benefit derived by the gouty from a course of treatment at Bath is due

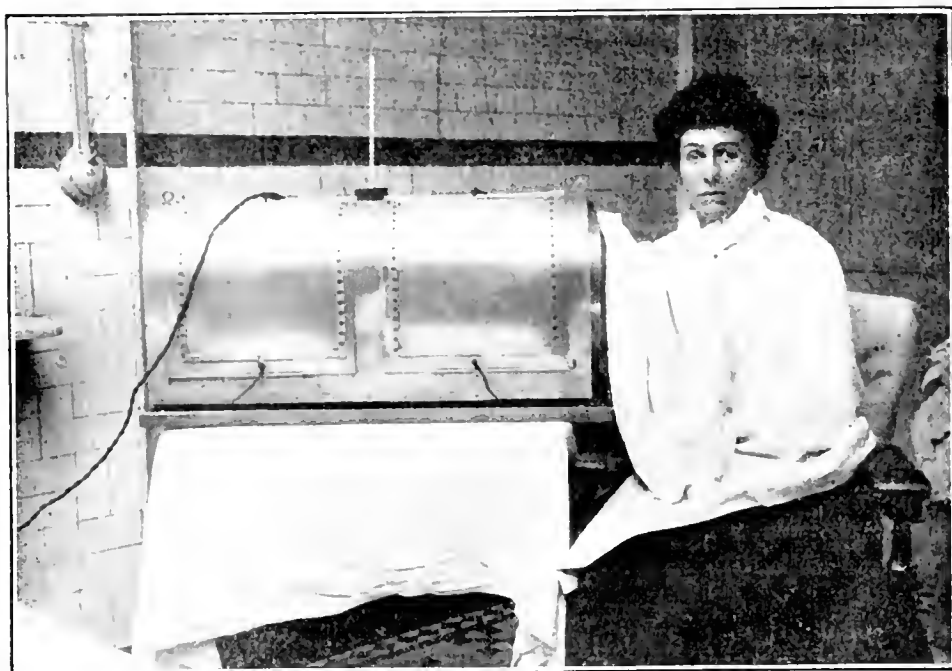
* Gout: Its pathology and treatment.



INHALATION ROOM.



RECLINING BATH.



ELECTRIC HOT-AIR BATH.



LOCAL VAPOUR BATH (*Berthollet*)

to the careful dieting and general adherence to physiological righteousness which are enforced on them by their medical advisers. Irregular forms of gout are as satisfactorily treated as the ordinary articular variety.

CHRONIC RHEUMATISM.—Treatment of all the various forms of so-called “chronic rheumatism” (chronic articular rheumatism, muscular rheumatism, senile arthritis, morbus coxæ senilis, &c.) yields satisfactory results, and patients convalescing from acute and subacute attacks are especially benefited. The waters are employed warm, locally or generally, either in the deep or reclining bath, with or without douching, when the patient is weak ; and as he becomes stronger the Aix massage, hot douching, and vapour baths may be used, with massage and active and passive movements. The waters appear to have a soothing effect and greatly to alleviate pain. The massage, given while in the bath, has a powerful effect in lessening deformity and restoring pliability to the thickened and stiffened joints. The general vapour baths are also employed with success, by causing perspiration and aiding absorption, and the local vapour baths appear to soften the tissues around the joints and to enable them to be moved more freely. Muscular rheumatism, as a rule, will require the Aix massage douche, together with dry massage, and if these methods fail to give relief the Berthollet vapour bath and the massage reclining bath may be tried. Patients must not be discouraged if no effect is produced after the first few baths ; no satisfactory result is likely to ensue unless a course of from 12 to 15 baths be taken. The bath treatment is contra-indicated in rheumatism with fever.

GONORRHOËAL RHEUMATISM.—The treatment of this affection has also yielded satisfactory results. The patients, being usually young male adults, stand the Aix douche and other baths well. Copious doses of the water are usually prescribed, and a generous diet without stimulants is of importance.

RHEUMATOID ARTHRITIS.—The statistics of the Mineral Water Hospital show that only 5 per cent. of the cases are cured, but that 80·7 per cent. are relieved, and comparing these results with those in which the ordinary treatment is adopted, the thermal waters of Bath hold out hope to those who have not tried them. The course of baths is, naturally, most satisfactory in the early stages. The majority of advanced cases will, however, derive considerable benefit. Before great disorganisation of a joint has taken place, considerable improvement is possible, pain is relieved, and movement is

increased. Immersion in the deep bath is first employed, and then wet and dry douching, the latter being used with much care. The value of the trained attendants is especially demonstrated in the treatment of this affection, the massage and douching combined, frequently producing the best results. In the acute stages of rheumatoid arthritis the bath treatment is not suitable. The course is often a prolonged one, and it is sometimes desirable that the baths should be suspended for a time, the patient, perhaps, leaving the city for a change, to return for further treatment.

SCIATICA.—Great relief is often obtained from the Vapour, Greville Hot Air, Electric Immersion, the Aix Massage, the Vichy Douche, or the Deep Bath with its undercurrent douche. Any of these baths may be used for this complaint in appropriate cases. In the acute stages, however, the simple bath only can be borne.

DISORDERS OF THE DIGESTIVE ORGANS.—Dyspepsia, flatulence, and constipation are often much relieved, the result being partially due to washing out the stomach by drinking the waters, partially to the bathing combined with massage, and also to the dietetic regulations to which the patients have to submit.

MUCO-MEMBRANOUS COLITIS is now very successfully treated at Bath by means of intestinal douches on the Plombières system. The hot mineral waters appear to be specially suitable for this treatment, and the irrigation has the effect, by bringing in contact with the intestinal walls a warm liquid of special properties, of re-awakening the contractability of these walls, of modifying the mucous membrane, and of influencing the secretion of the glands. The intestinal lavage is suitable, not only in the cases of colitis with constipation, but also in those cases where there are alternations of constipation and diarrhœa.

ANÆMIA.—This complaint has already been referred to when discussing the effects obtained by drinking the waters. In addition the tepid reclining bath with gentle massage is of advantage.

SYPHILIS.—Bath lays no special claim to the treatment of syphilitic conditions, but a course of baths is sometimes taken as an adjuvant to specific treatment, especially that by inunction. According to experience the baths, by promoting the action of the skin and the secretions generally, help the

elimination of the poison. It has been found that when the baths are taken during the administration of mercury, the effect of its therapeutic action is increased. In the anæmia and prostration resulting from the long administration of the drug the waters will be found to act as an excellent tonic.

ARTERIO-SCLEROSIS.—BOURBON-LANCY treatment as carried out at Bath is indicated in the premonitory or pre-sclerotic stage of arterio-sclerosis and also in the latter stages if the deeper organs are not much involved. "The bath produces on an irritable and tachy - cardiac heart a remarkably calmative action."—McGregor Robertson.

DISEASES OF THE SKIN.—PSORIASIS, eczema, acne, and some other diseases of the skin are successfully treated. If the condition happens to be of a rheumatic or gouty origin the results are very good. Reclining tepid baths are generally first employed, the temperature being gradually increased, as also is the time of stay in the bath. Vapour baths are finally given. Prolonged immersion is carried out to a limited extent only. Sulphur and other medicated baths are also used.

DISEASES OF THE NERVOUS SYSTEM.—CHOREA, especially when associated with a rheumatic history, yields good results. The various forms of peripheral neuritis are also treated with advantage, as also are the after-results of hemiplegia and myelitis. Patients the subjects of tabes dorsalis also present themselves for treatment, and by the use of the reclining bath and the Berthollet vapour bath with the gentle spinal spray, the girdle and lightning pains are frequently considerably ameliorated. Cases of neurasthenia, too, improve under the use of massage and the stronger douches.

DISEASES OF THE RESPIRATORY SYSTEM.—The water is used in a pulverised form for chronic laryngitis and pharyngitis, but it is commonly held that the treatment is most successful in respiratory affections dependent upon the gouty constitution. Various medicaments can be added to the sprays if desired.

DISEASES OF WOMEN.—Various forms of these diseases yield satisfactory results, but the best are attained in interrupted or painful menstruation. The reclining baths are employed with local hot under-current douches to the sacrum and lumbar and ovarian regions, whilst the ascending hot douche is also of service. Cases of leucorrhœa, cervical catarrh, and chronic pelvic induration also experience benefit. Chronic inflammation of the ovaries is sometimes relieved by reclining baths and the under-current douches.

RESULTS OF INJURY.—Stiffness and pain as the results of injuries to joints are greatly relieved by the douches and massage.

TROPICAL DISEASES.—As a resort for tropical patients Bath has a long-established reputation. The waters rapidly benefit cases saturated with the poison of malaria, and improve the cachetic condition.

CONTRA-INDICATIONS.—It may be generally stated that the Bath treatment should never be adopted in any disease during its acute stage. Tuberculous joint disease and pulmonary affections derive harm rather than good. Patients suffering from any form of abscess or large open sores also are not suitable for treatment. Epilepsy is also debarred, on account of the risk of an attack occurring whilst the sufferer is in the bath. Many forms of heart disease improve under a course of baths, but when there is marked arterial sclerosis, advanced atheroma, aortic incompetency, or pronounced fatty degeneration of the heart, the baths must be used with the greatest caution. Aneurysm of the aorta is also a direct contra-indication to their adoption.



THE GEOLOGY AND CLIMATOLOGY OF BATH.

By W. H. Symons, M.D., D.P.H., Medical Officer of Health.

Bath is noted for possessing a great variety of climate within a comparatively circumscribed area. Central Bath has an equable climate, genial in the coldest weather and eminently suitable for invalids and elderly people, while the modern developments of electric traction, electric tram-cars, motor omnibuses and taximeter cabs have brought within easy reach the heights of Lansdown on the north and those of Combe Down on the south. Lansdown is 750 feet above sea level, with bracing winds and a limited view of the Bristol Channel. On the north may be seen the pleasing undulations of Gloucestershire, while on the south, terracing the opposing slopes, England's fairest city reclines. Buildings are scarce on Lansdown, and the views may be enjoyed during a two mile drive, on a level road, to the ancient battlefield. The road is dry, being bedded on the cap of Great Oolite, or Bath Stone, which is here superficial, and from 100 to 200 feet in thickness. Underlying this is the Fuller's Earth formation, more easily denuded, and giving the gradual slopes on which are built Kingswood School for the sons of Wesleyan Ministers and the Royal School for Daughters of Officers of the Army. Immediately under the Fuller's Earth is the Inferior Oolite, the outcrop of which may be seen in the lane leading down to the picturesque village of Charlcombe. The Upper Lias, or Midford Sands, come next in order. This formation is easily recognised by the alternation of level ground and sudden slopes. Beneath the Midford Sands are the Lias Clay and Rock on which Central Bath is built, but considerable deposits of Mammal Drift Gravel lie in the bend of the river. The subsoil of Henrietta or Bathwick Park is Gravel, and here the Central Climatic Station is placed ; a second station is on the Fuller's Earth at the Kingswood School ; a third on the Oolite of Claverton Down, and a fourth on the Lias at Combe Park. From observations made daily at these stations for the past ten years, and from those made at the Royal Literary and Scientific Institution for the past forty-three years, unique records show the great variety of climates.

Bath has a mean elevation of 285 feet above sea level, or 220 above London. Combe Down is 550 feet above sea level, or 200 feet lower than Lansdown, but the strata being inclined

in that direction, it too is capped by the Great Oolite, and it was by observing the similarity of the outcropping rocks of the Bath Valley that William Smith, the Father of English Geology, in 1795 realized the continuity of various strata, and enunciated the first principles of modern geology.

The river Avon, coming northward from Limpley Stoke, enters the Bath valley at Bathford, is deflected sharply to the southwest, making another curve round the spur of Lansdown, and flows away from Bath in a northwesterly direction. The course of the river through the city being like the letter S, shows the variety of aspects of the slopes bordering the river, and, with the different subsoils explains the differences of temperature found in a limited space.

The following records relate to central Bath, a low lying area of about 600 acres:—

RAINFALL.

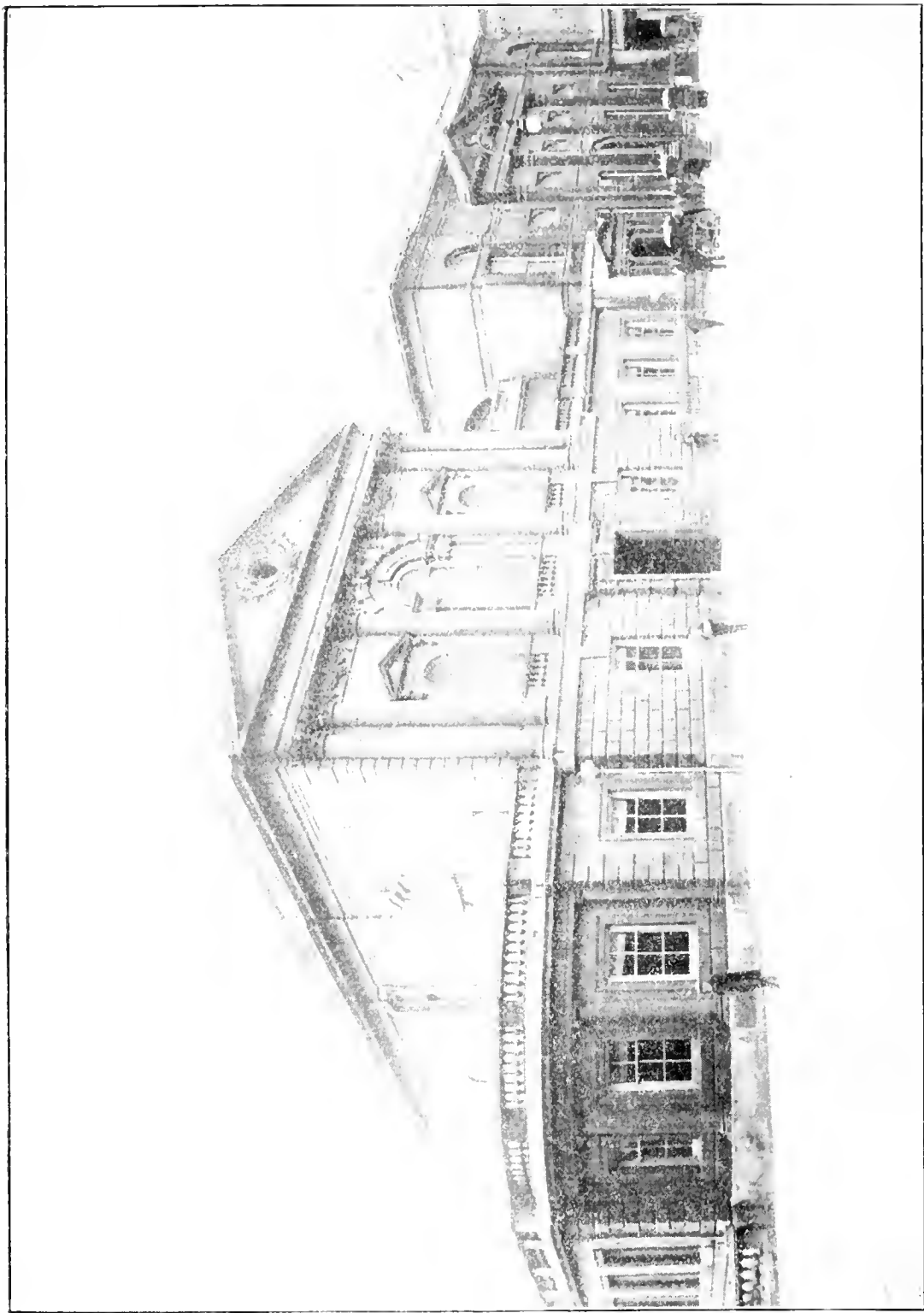
Observations taken at the Royal Literary and Scientific Institution, extending over forty years, 1866 to 1905, give the mean Annual Rainfall 30.48 inches. The greatest amount measured in any year was 42.57 inches in 1903. The least amount was 21.38 in 1870. In 1909 it was near the average, namely 30.16 inches. The month with the highest monthly average is October, 3.05 inches, while the lowest average is in May, 2.03 inches.

TEMPERATURE.

Observations taken at the Central Climatic Station, Henrietta Park, for ten years from October 1898 to September 1909, give a Mean Temperature of 49.8° F. The Mean Winter Temperature is 41°, Spring 52°, Summer 59°, Autumn 46°. February is the coldest month, the average Mean Temperature being 39°, and July the hottest with an average of 61.5°.

SUNSHINE.

Bath is well placed for getting a full amount of Winter Sunshine. Compared with the northeast of England it has 51 hours more "possible sunshine" in the Winter, and 58 hours less "possible sunshine" in the Summer. The sunshine recorder only indicates bright sunshine, which is powerful enough to leave a charred mark on a card, when brought to a focus by a ball of glass. The records for five years show an average of 295 hours "bright sunshine" during the Winter months, 575 hours during the Spring, 500 hours during the Summer, and 251 during the Autumn months. A yearly average of 1,711 hours of bright sunshine.



THE ROMAN PROMENADE AND GRAND PUMP ROOM.



CONCERT HALL.—GRAND PUMP ROOM.

ATTRACTIONS AND AMUSEMENTS.

For the opportunities which are afforded for amusement and social gaiety, as well as in the provision of refined entertainment for its visitors, the City of Bath has long been held in high repute. Whether in its musical or dramatic traditions, in the variety of summer attractions provided in its parks and gardens, or the gay reunions witnessed at the famous Assembly Rooms, within whose walls the flower of the genius and fashion of England have from time to time foregathered, Bath has a record as a centre for fashionable delights of which any resort might well be proud.

The Pump Room Concerts, famed for upwards of a century and a half, enjoy a status in the musical world which demands their being assigned a foremost place in any chapter on the attractions of Bath. Daily concerts are given in the Concert Hall of the Roman Promenade, which was built in 1897 as part of the scheme for the preservation of the Roman Baths and antiquities. The building embraces a covered terrace attached to the Concert Hall, spacious promenades overlooking the great Roman Bath, and luxuriously furnished drawing and smoking rooms, the whole affording practically all the comforts and conveniences of a private club. Writing tables are provided and letters may be posted in the building, and a telephone call office has been installed for the use of visitors. Here the afternoon hours may be agreeably wiled away amid historic surroundings and with the strains of music provided by one of the finest orchestras in the kingdom. The indoor concerts extend from October till May.

The distinction belongs to Bath of possessing the first patent Theatre out of London, rich in memories of players to whom its boards have been as stepping-stones to fame in the brightest annals of the drama. The present building has accommodation for an audience of nearly 1,500. There is also a popular Theatre of Varieties, known as The Palace, where performances are given twice nightly for the greater part of the year.

The Assembly Rooms, opened in 1771, are still the scene of the fashionable balls and other society gatherings. They are undoubtedly among the most elegant suites of public rooms

in the Kingdom, and all the apartments are on one floor. Here is the historic card room where Mr. Pickwick played his immortal game of whist with the trio of elderly dowagers. During the winter months the rooms are much in use for high-class concerts and other entertainments, while the Bath musical societies, which are of more than local repute, give occasional performances of choral and orchestral works.

The charm of a visit to Bath, however, is not dependent upon the seasons. In summer, when out-of-door amusements are in vogue, and the sylvan surroundings are seen at their best, few inland cities afford attractions more pleasing and diversified, or scope for a more delightful sojourn. A military band provides music daily from May to September, the performances being usually divided between the Royal Victoria Park, the Institution Gardens and the Sydney Gardens. The latter resort, once the Vauxhall of Bath, is tastefully laid out with walks and lawns, with stately foreign trees providing agreeable shade from the summer heat. Here on gala days, when the grounds are illuminated, the scene is a very charming one, the Floral Fêtes and other popular fixtures drawing large concourses of people from many miles round. On wet days during the summer the band performances are transferred to the Roman Promenade.

In its Institutions offering permanent provisions for those who prefer lettered ease, the city is well supplied. The Victoria Art Gallery accommodates the bulk of the art treasures owned by the city, while frequent loan exhibitions are arranged. In connection with the gallery is a valuable free Reference Library. At the Royal Literary and Scientific Institution is another fine Library and Reading Room, to which visitors are admitted as temporary subscribers. In the same building is a Museum of great scientific interest, while the Institution is the headquarters of various scientific, literary and social organisations, among the most prominent being the Literary and Philosophical Society, the Bath Field Club and the Bath Chess Club. Another attractive Institution is the Holborne Art Museum, near Queen Square, containing a fine collection of paintings, old china and plate.

Of local Clubs the most important is the Bath and County, occupying handsome premises in Queen Square. It has high social standing in the West of England. There is also a fashionable Ladies' County Club in Milsom Street.

THE CLASSIC GROUND OF BATH.

There are few cities in the world more rich in historic associations than Bath, or around the life of which such a host of picturesque memories cluster.

With what period, indeed, of that picturesque eighteenth century life of England is not the name of Bath in some way identified? Though the despotic sway of Nash was at its height, and the local empire of frivolity had reached its zenith, there was yet another side to the picture. Memorials have been handed down to us in the noble achievement of the age, which are not only zealously cherished now, but which it is safe to say future generations will not willingly let die. Turn where you may the city is eloquent of the past, and it is difficult to make a selection from the long roll of eminent men and women, distinguished in the world of science, art and literature, who in these early days made Bath their home.

Sheridan has perpetuated the Bath in which he conducted his romantic wooing and where he gathered material for the finest among English comedies; here it was that the imaginative author of "Tom Jones" found in the genial and benevolent Allen, at Prior Park, the personage destined to immortality as "Squire Allworthy;" it was at a house in the Circus that Gainsborough began his great career by painting pictures at five guineas each; hard by the Earl of Chatham dwelt, representing Bath in two Parliaments, and it was here, in after years, that the younger Pitt came to recruit a system shattered by the storms of State. Pitt was in Bath when the news of Bonaparte's success at the battle of Austerlitz reached him, a blow which so overwhelmed him that in less than two months he sank under the weight of it.

It was at a house in St. James's Square, just off Park Street (which the immortal Pickwick likened to the perpendicular streets a man sees in a dream), that Dickens, Forster, Maclise and Southey received the hospitality of the enthusiastic Landor, and where according to Forster, the fancy which took the form of "Little Nell" in the "Curiosity Shop" first dawned upon the genius of its creator. Here it was that the actor Quin found a smooth pathway to the grave, knowing "no better city for an old cock to roost in," while here also Burke spent the evening of his days. Wolfe dwelt at Bath at

the time he received the despatch which sent him forth to be the hero of Quebec, and here it was that Nelson sojourned and found restored health after the expedition to Central America. Sir Thomas Lawrence likewise lived here; Chesterfield wrote at Bath several of his famous letters, and Lytton portions of his latest novels, while Sir Walter Scott takes us to the dame school near the Parades, where he spent many pleasant youthful days.

Nor does this in any way exhaust the catalogue of celebrities that graced Bath annals in a memorable age. It was from his house in New King Street that Herschel "swept the heavens," and there he first watched the planet Uranus swim into his ken. Mrs. Thrale, the friend of Dr. Samuel Johnson, lived many years in Bath, and here she met the husband of her later years—Piozzi. Johnson himself was here with the Thrales, and we are not without evidence that he had a distinct partiality for Bath. In one of his letters he counsels a friend "not to waste your time in unprofitable sorrow, but go to Bath and endeavour to prolong your days." It was at the old Bath Theatre, where Sheridan personally conducted rehearsals for "The School for Scandal," that Mrs. Siddons, the great queen of tragedy, played for three pounds a week and laid the foundations of her unrivalled career. Here Beckford, "England's wealthiest son,"* found a congenial retreat after the sacrifice of his beloved Fonthill; the famous Elizabeth Montague often resided in Bath; Oliver Goldsmith came hither as the guest of Lord Clare; here Southey's boyhood was spent and part of Wordsworth's prime; while at Bath Byron's parents met and married, and here "in Turkish costume at a masquerade"† we find the author of "Childe Harold" in his earlier years.

Justly enough Bath merits a place among the "shrines of the Empire." But we cannot linger upon these memories. They are being perpetuated by the city in a manner which is appreciated by the traveller attracted within its borders for the first time, for wherever it is possible to identify and permanently mark the residences of these worthies of a former age, it is being zealously and faithfully done. The tablets fixed by the Corporation upon the house-fronts are unobtrusive enough and may become dimmed by the lapse of time, but the names which many of them bear will grow brighter the further they recede into the past.

* Lord Byron in *Childe Harold*.

† Dictionary of National Biography.

PICTURESQUE BATH.

Amid the softly-wooded hills that embrace one of the most picturesque sites in the valley of the Somerset Avon, with crescent, street and circus rising in stately sequence upon its terraced slopes, Bath is singularly fortunate in its setting. The position affords gradations of temperature and conditions of climate, not less attractive to those seeking permanent abode, than welcome to the invalid in quest of health. Here in this "city of the warm vale," where the icy grip of winter is rarely felt, where the charms of springtide are experienced several weeks earlier than in the eastern counties, the visitor finds all the essential comforts and requirements that go to make up an ideal place of residence.

Bath stands pre-eminent among English residential cities for the beauty and extent of its public parks, pleasure gardens and ornamental open spaces. The principal of these is the Royal Victoria Park, named after the late Queen, who opened it before she ascended the throne. It is a magnificent domain embracing nearly fifty acres, with well-kept lawns, stately promenades, and a carriage drive a mile and a quarter in length. Its ideal Botanical gardens are a favourite resort for the botanist and lovers of the picturesque.

No pages of description can be expected to adequately convey to the mind's eye the exquisite blending of town and country which is so characteristic of Bath, the classical dignity and repose of its streets, unfolding pretty bits of landscape at every turn, or altogether that wonderful amphitheatrical spectacle which from any slight elevation the city affords to the visitor who beholds it for the first time. The view particularly by morning or evening light is one not easily effaced from the memory. Let the visitor ascend to the brow of Beechen Cliff on a clear day. An electric car service now renders easy of approach a view-point which too many have missed. A short, slightly inclined roadway, branching off from the top of Holloway, leads to a narrow passage between two high walls. From this you emerge suddenly on to the crest of the hill, where the whole city unfolds itself at your feet as it were like a map. It is worth a long pilgrimage to see the panorama which here bursts upon the view. On a clear night the lights of the city appear to stand out in the darkness as a vast multitude of twinkling stars, which may be traced up the

stately terraced slopes of Lansdown on the opposite hill until they appear to mingle with the orbs of Heaven. The view is often likened to that of Edinburgh from Arthur's seat. The heights of Lansdown and Combe Down, while affording more distant views of the city, are remarkable for the great breadth and loveliness of the prospects which they command, extending from the one point to the Bristol Channel and the Welsh mountains, and from the other to the Wiltshire Downs and the famous White Horse on Bratton hill, said to have been originally carved by Alfred's soldiers to commemorate his victory over the Danes.

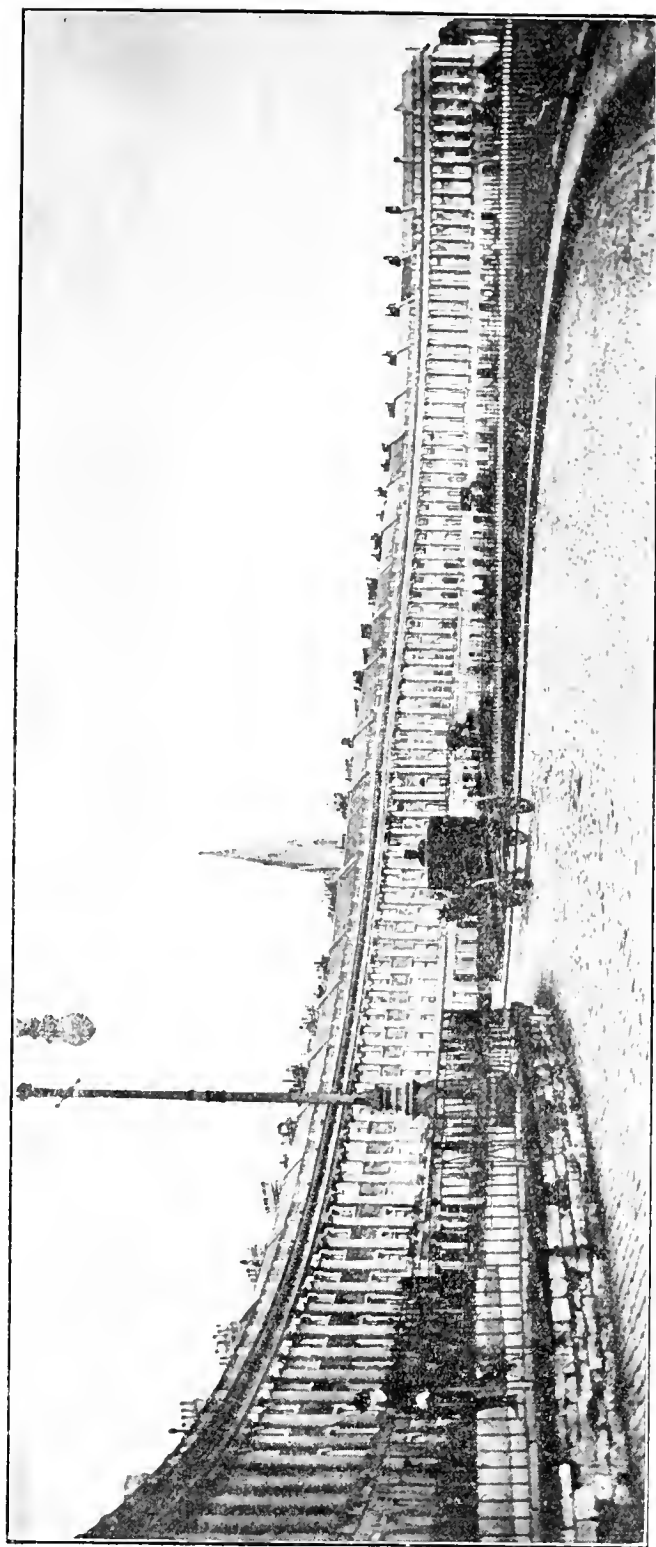
SPORT.

As a centre for motoring or driving Bath is not easily excelled, and to exhaust the many varied and interesting excursions to be obtained in the neighbourhood would require a long sojourn in the city.

The out-door attractions to the visitor, however, by no means cease here ; an infinite field for exercise and recreation offers itself in the provisions which are made for numerous social pastimes. For the golfing man there is the choice of three flourishing clubs with breezy links on the hills ; the hunting man finds himself in immediate touch with the meets of both the Bath and County Harriers and the famous Beaufort Hunt, and moreover, has a fine open racecourse to gallop over ; there are a variety of tennis, cricket and hockey clubs, and the old fashioned amusement of archery also has its devotees.

In the very heart of the city is a fine Recreation Ground, where various athletic and cycling festivals are held during the year, while the Somerset County Club is gradually growing more partial to the same ground as a venue for county cricket. The various boating clubs, at whose stations boats may be hired, enable free use to be made of the Avon, and boating is here a very favourite pastime.

The angler, too, discovers in the Avon that meanders through Bath as good a fish-producing stream for its size as any in the Kingdom, its waters teeming with coarse fish, while some of its trout run to a heavy size ; fishing may also be had in the Kennet and Avon Canal, and if leave be obtained, in various preserved streams round Bath.



THE ROYAL CRESCENT.

"The exquisite Crescent which to all the excellence of architecture which adorns the Circus, adds all the delights of nature that beautify the Parades." — FANNY BURNES.



BATH ABBEY.

SOME GENERAL NOTES.

A few of the other advantages which the city offers may be briefly noted. The purity and abundance of its cold water supply stands in the forefront of its claims, while the healthy character of the city is shown by the low corrected death rate, the average for the last five years being only 13·3 per 1,000. This is the more remarkable when it is remembered that large numbers seek retirement in Bath and are “born to the city” at advanced ages, a fact which has earned for Bath the somewhat quaint appellation of “the cradle of old age.”

Of the many beautiful ecclesiastical edifices which the city possesses, the noble Abbey Church, with its central tower and graceful pinnacles, occupies a commanding position in the centre of the city and draws the eyes and feet of strangers to itself. It is one of the latest examples of pure Perpendicular architecture and is remarkable for its enormous area of window space and beautiful fan-tracery vaulting. Its Norman predecessor, the nave of which was as large as the existing church, was built in the reign of William Rufus, and portions of the bases of the Norman columns may still be seen. The walls of the present church are crowded with monuments and tablets, among which will be noticed one to Beau Nash and a marble bust of Quin, the actor, with the epitaph by Garrick. Of numerous other churches and chapels many have hallowed memories. The Octagon, no longer devoted to ecclesiastical uses, was the fashionable proprietary church in which Herschel was organist at the time he made his great astronomical discovery, while in later years Magee, afterwards Archbishop of York, ministered there. Argyle Chapel, among the finest of the Nonconformist churches in the city, was the scene for upwards of sixty years of the devoted ministrations of that “prince of preachers,” William Jay, whom Sheridan described as “the most natural orator he had ever heard.” At the church of St. Swithin, Walcot, Christopher Anstey, the satirical poet of the 18th century, and William Hoare, the contemporary of Gainsborough, were both laid to rest, while the remains of Fanny Burney (Madame D’Arblay) lie in the closed churchyard. Monuments to them are to be seen in the church.

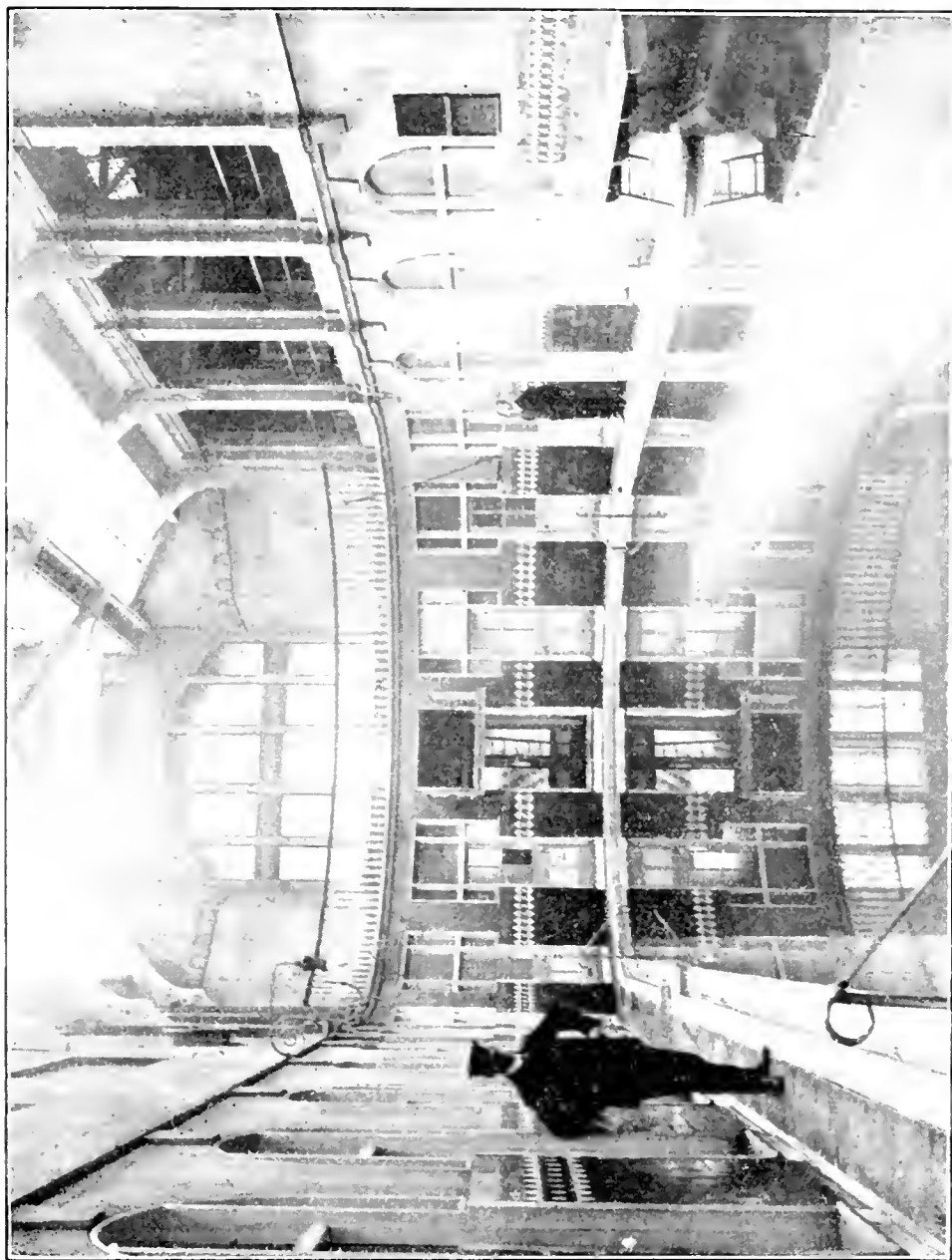
Evidences of the city's high-class character as a visiting and residential centre are noticeable in its well-paved streets, and the beauty and variety of its shops. Milsom Street, one of its most fashionable shopping centres and promenades, has been aptly styled the Regent Street of the West. Visitors will also find an excellent choice of hotels, boarding houses and private lodgings, either on the level near the Baths and Pump Room, or on the slopes, where they may enjoy the invigorating air of the hills. An excellent service of electric trams renders communication with the outlying districts both convenient and inexpensive. Nor is it unimportant to mention that Bath is within two hours of London by the finest express service in the world, while the city is in direct communication with Birmingham and the whole Midland system, as well as with the South Coast through Salisbury and Southampton, Weymouth, or Bournemouth, being also on the railway high road to Bristol, Exeter, Torquay and Plymouth.

INQUIRY OFFICE.

An Information Bureau, conveniently arranged to form part of the Baths Ticket Office, adjoining the Grand Pump Room, has been established by the Corporation for the convenience of visitors. There is no charge for the service of the Inquiry Office, and prospective visitors are invited to make inquiries by letter, while anyone desiring to make personal inquiry will be given every assistance at the office.

The Official Handbook to Bath is sent away from the bureau, and lists of the baths, programmes of attractions, tariffs for carriages, and lists of excursions may be obtained; and maps, guide-books and time-tables may be consulted.

The Director of the Baths will be pleased to afford every assistance to strangers coming to Bath for the waters, who may desire any special arrangements, such as invalid carriages on the railway or wheelchairs to meet them at the station.



SWIMMING BATH—NEW ROYAL BATHS.

SCALE OF CHARGES FOR BATHS.

			£	s.	d.
1.	Deep Bath	... ..	3	0	
2.	Deep Chair Bath	... ..	3	6	
3.	Reclining Bath	.. ...	2	6	
4.	Douche-Massage (Aix-les-Bains), Single	...	3	3	
5.	“ “ “ Double	...	4	0	
6.	“ “ (Vichy)	...	4	0	
7.	Vapour Bath (Berthollet), general or local		3	0	
8.	Needle or Local Douche, or Scottish Douche		2	6	
9.	Ladies' Special Douche	... ..	2	6	
10.	“ “ “ and Reclining Bath		3	6	
11.	Plombières Douche	.. ...	3	6	
12.	“ “ with Reclining Bath and Tivoli Douche	... ..	5	0	
13.	Bourbon-Lancy Bath	... ..	3	0	
14.	Sitz Bath	... ..	2	6	
15.	Sprays (Throat, Eyes, Nose, Ears, or Face)		1	6	
16.	“ (Challes and La Bourboule)	...	2	0	
17.	Mineral Water and Pine Bath	...	3	6	
18.	“ “ Sulphur Bath	...	3	0	
19.	Bran, Oatmeal, Soda, or Fuller's Earth Bath		3	0	
20.	Pine and Brine Bath	... ..	4	0	
21.	Liver Pack and Douche	... ..	3	0	
22.	Any additional Douche, Shower, Needle or Scottish Douche	... ..	0	0	
23.	Local Massage given with any Bath	...	1	3	
24.	Nauheim Thermalbad	... ..	3	6	
25.	“ Sprudelbad	... ..	4	6	
26.	Electric Water Bath	... ..	5	0	
27.	Greville Electric Hot Air Baths :—				
	Arm, Leg, or Whole Body Bath, per bath	10	0		
28.	Ditto, Three applications	... 1	1	0	
29.	Hand or Foot (for each application)	... 5	0		
30.	Both Hands or both Feet (each application)	7	6		
31.	Neck, Throat, Eye, or Ear, per bath	... 2	6		

SECOND CLASS BATHS.

			s.	d.
32.	Deep Bath	...	2½	6 and 1 9
33.	Deep Chair Bath	...	2	6
34.	Reclining Bath	...	1	9
35.	„ „ without pack	...	1	0
36.	Douche-Massage (single), ladies or gentlemen	...	2	0
37.	„ „ ladies only	...	2	6
38.	Vapour Bath (Berthollet), general or local	...	1	9
39.	Local Douche or Shower	...	1	9
40.	Extra Douche	...	0	6
41.	Local Massage	...	1	3

ROYAL SWIMMING BATH.

			s.	d.
LADIES—Private Room...	...	...	1	0
Public Room	...	...	0	6
GENTLEMEN—Private Room	...	...	1	0
Public Room (Boys under 12)	...	...	0	6

TEPID SWIMMING BATH (Gentlemen only).

			s.	d.
Private Room	...	...	0	9
Public Room	...	...	0	6

DRINKING THE WATERS.

			s.	d.
Single Glass...	...	...	0	2
Book of Coupons (14 glasses)	...	..	1	6

HOURS OF OPENING.

WEEK DAYS—King's and Queen's Baths and New Royal Baths,
7 a.m. to 7 p.m.

„ Old Royal Baths, 7 a.m. to 8 p.m.

„ Grand Pump Room, 8 a.m. to 6 p.m.

The Bathing Establishments may be viewed between
1 p.m. and 3 p.m.

SUNDAYS—King's and Queen's Baths, New Royal Baths and Old
Royal Baths, 7 a.m. to 9.30 a.m.

Grand Pump Room, 12.15 p.m. to 1.30 p.m.

JOHN HATTON,

Director of the Baths.

